THE BUILDER
A JOURNAL FOR THE ARCHITECT & CONSTRUCTOR

VOL. CXXXVIII. MAY 23, 1930. No. 4555.

All Hallows, London Wall.

From a Pencil Sketch by MR. E. STARLING.

MEETINGS

FRIDAY, *May* 23.

Institution of Municipal and County Engineers. East Midland District Meeting. At the Town Hall, Leicester. 10 a.m.

SATURDAY, *May* 24.

Institution of Electrical Engineers. Summer Meeting. At Leamington Spa.

Institution of Municipal and County Engineers. Yorkshire District Meeting. At the Town Hall, Leeds. 2 p.m.

MONDAY, *May* 26.

Royal Institute of British Architects. Mr. C. Leonard Woolley on "Recent Excavations at Ur." 8 p.m.

Surveyors' Institution. Annual General Meeting. 5 p.m.

WEDNESDAY, *May* 28.

International Congress of Building and Public Works (Employers).—Reception in the Natural History Museum, S. Kensington. 8.30-10.30 p.m.

Royal Society of Arts. Mr. H. Barnard on "The Father of English Pottery, Josiah Wedgwood, F.R.S., Potter, Inventor, and Man of Science." 8 p.m.

FRIDAY, *May* 30.

International Congress of Building and Public Works.—Banquet. Connaught Rooms, Great Queen-street, W.C.2. 6.30 p.m.

Town Planning Institute. Mr. J. Macaulay on "Town Planning Economics." 6 p.m.

Society for the Protection of Ancient Buildings. Annual General Meeting. At the Institution of Civil Engineers, Great George-street, Westminster, S.W.1. 4.30 p.m.

SATURDAY, *May* 31.

South-Eastern Society of Architects. Visit to Hampton Court and Richmond 10 a.m.

MONDAY-FRIDAY, *June* 2-6.

Institution of Electrical Engineers. Conference. At Dublin.

TUESDAY, *June* 3.

Illuminating Engineering Society. Annual Meeting.

SATURDAY, *June* 7.

Institution of Municipal and County Engineers. Southern District Meeting. At the Town Hall, Cheltenham. 10.30 a.m.

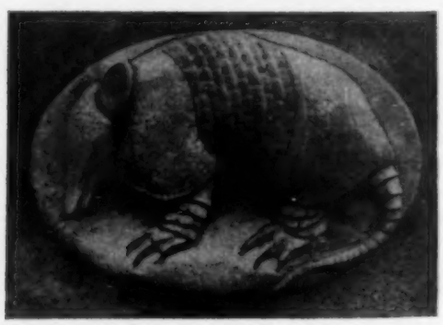
GOLDEN EAGLE.

INDIAN ELEPHANT.

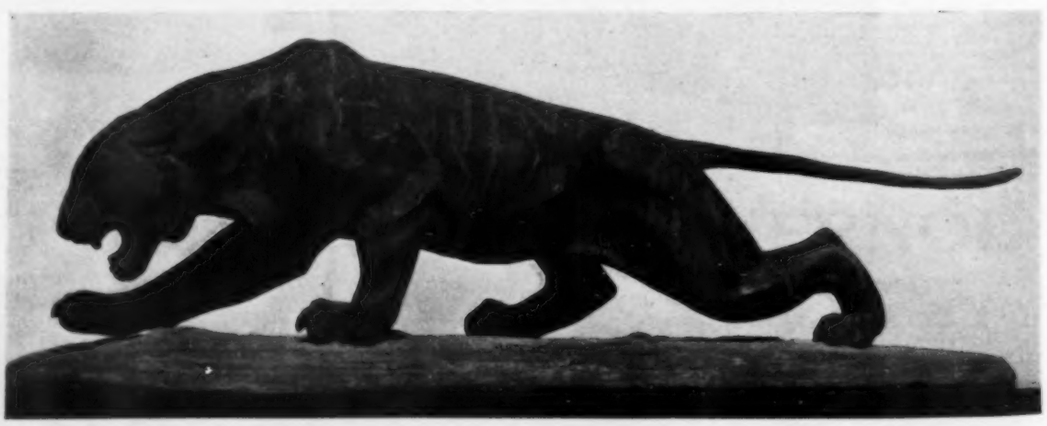
REINDEER.

BEAVER.

AMERICAN BISON.



ARMADILLO.



THE LEOPARD.

Sculpture Cast in Concrete.

The six upper illustrations are in the New Zoology Buildings, Edinburgh University, for which SIR ROBERT LORIMER was architect. The lower work, the Leopard, is from the exhibition referred to on page 991.

MISS PHYLLIS M. BONE, Sculptor.

LAND VALUES OF THE FOUNDATIONS OF ARCHITECTURE

THE question of land values was revived by the Chancellor in his recent Budget speech. It is a difficult question to discuss without appearing to trespass upon the border-line of politics. Nevertheless, any measure concerning land concerns buildings and, hence, architecture. If it is regarded as a social problem, we shall do well to regard architecture also as a social problem.

At once some distinction must be made between a social grievance and an evil that is softened when it is made to pay for its sins. In no aspect of English life does this confusion between the real and the ideal come out more disconcertingly than in the way we are distributed upon the land. There are many people who sympathise with the general principle that land for housing purposes is too dear. They see agricultural values multiplied many times over solely because the land is used by human beings. They have lived in houses on tiny plots of land, and their hearts are hardened. They have travelled far from the city in search of more land and breathing space, and it is, perhaps, only those who have searched in vain that know the real bitterness of disappointment. Undoubtedly this is the source from which most of our land reformers draw their inspiration, and, unfortunately, it is the string upon which the politician plays.

It is doubtful whether any system of national taxation will give us the conditions we seek. There is even a danger that it will place a further burden upon the art of building. The truth is we have to make up our minds whether we want cheaper building land or money from taxation. We must be frank enough to admit that a thing is none the less an evil—if it is an evil—because it is taxed. It is the duty of the Chancellor of the Exchequer to find revenue, and, consequently, instead of expecting him to give us cheaper land, we expect him, through a system of taxation, to legalise the transaction. In this way many, no doubt, will be able to sink their grievances and their ideals. Unfortunately, buildings as property cannot be separated from land, and if taxation is the objective, there are possible dangers ahead for property owners and the building industry. Some of them we can forecast from an earlier experience of a Land Valuation Act. There are records of houses being valued by the State three weeks after they were bought, and the valuations were less than the owners had paid. In other words, they had, apparently, made bad bargains when they thought they had made good ones. They must, therefore, accept the tomfoolery that if they sold their houses for what they paid they would have made a profit! Conditions such as these made it difficult to believe one was living in a civilised country.

It is to be hoped that we shall be spared this folly. If it is to be an established principle that the State is entitled to some share in house profits, let us not forget elementary principles. Even with that as a starting point it is by no means certain that the conditions or qualities which enhance the value of property are wholly associated with the land or even faintly with the State. Admittedly, property can be increased in value by the community, as it can be decreased. For taxation purposes, the quality and the design of the house are of no consequence; neither is the upkeep of the house nor the surroundings. Architecture as an art or as a commodity does not exist, or if it does, the plunder for the tax-gatherer is derived from the land. We can admit that this distinction is immaterial, and accept the plain fact that any taxation upon property is a burden upon house-ownership, the architect, and the builder. It is—in one aspect at least—simply a question of taxing a good bargain, and this might just as easily be done upon our stock exchange profits or our collection of pictures. At this stage an apology would seem to be necessary for the protest—now growing faint—that there is a housing shortage and there is much ugliness that may have to be made still cheaper.

The disinterested position occupied by the State is well brought out in the following experience. City workers in a provincial town descended upon a little village twenty miles away. Land for grazing sheep was to be obtained at an annual rental of ten shillings an acre, and is now covered with houses producing an annual rental of forty pounds an acre. The local gas supply and sewage system proved inadequate, and sixpence was added to the rates to meet these obligations. The inhabitants resented the intrusion and the penalty when the rateable values were not commensurate with the expenditure. Scores of readers could, no doubt, give examples of a similar nature. A taxation of land values does not indicate that these building plots would be cheaper, while the distribution of the taxation dues would appear to belong to the particular village. Similarly, in a large city, the widening of a street to double its width might cost ten million pounds, and the value of the property on each side might be doubled. The ratepayers pay for the street widening and by a national system of land taxation they would share, along with Cornwall and Caithness, a decimal reduction in income tax. In short, there are rewards and penalties which have a logical and local business connection, and it is difficult to see why the State should interfere. In all probability the day will come when this problem will be tackled by individual cities, and there is little doubt that it would stimulate many much-needed architectural improvements. This is the logical application and justification of land taxation.

There is another view which ought to be mentioned. Various Governments have come to the conclusion that a certain limited number of houses per acre is the ideal for the future. For some reason it never became a law, and we must, therefore, assume that less ideal conditions and smaller plots of land must be the portion of those who can afford to pay more for them. Whether the ideal was right or wrong, it had the effect of placing an obvious limitation to the exploitation of land values by the simple process of limiting the number of houses that could be crowded upon an acre of land. Under these conditions there is little scope for a Chancellor looking for huge profits. Housing ideals and land taxation seem to sit together badly.

Out of it all emerges the fear that a Government proposal to become a partner in the exploitation of land values can produce nothing but harm to the art of building.

NOTES

The Institute Dinner.

THE annual dinner of the Royal Institute of British Architects last week was a function of more than usual interest, not only from the point of view of association and environment, but because, in the words of the Lord Mayor, of the great gathering of very distinguished people, and the large number of architects and their ladies, presided over by Sir Banister Fletcher, who assembled in the Guildhall. And if the after-dinner speeches seemed to be inadequate to the occasion, especially in their neglect of the subject of architecture as an art, it fell to an architect, Mr. Kitson, Hon. Secretary of the Institute, to make what was undoubtedly the best speech of the evening. His very happy remarks in proposing the toast of "The Guests," and the admirable manner in which the speech was delivered, gave a good deal of pleasure to those who heard him.

Vital Issues of Charing Cross.

THE vital issues which lie behind the problem of Charing Cross have been continually obscured, and Dr. McColl makes pertinent reference to this in his letter in Tuesday's *Times*, wherein he says that no one desires that a terminus should be conspicuous or that its design would offer an enviable opportunity for the architect. What is objectionable is not the station frontage but what is behind: the acreage of lines that would throttle this part of the river quarter and involve a muddle of twisted and tunnelled roads. To push a railway to the river front in central London above street level is an anachronism perpetuating the worst engineering practice of the nineteenth century.

"Lorna": Stone Garden Sculpture.

MISS PHYLLIS M. BONE, Sculptor.

Calton Jail Plans.

THE reported announcement that the Scottish Fine Art Commission has presented a report on the draft plans and model of the proposed Government buildings on the Calton site adverse to the Office of Works is, if the statement is authentic, news that is of much importance to the profession. It would, however, be unwise to jump to any conclusions until official confirmation is forthcoming. For one thing, the adverse criticisms of the Government's plan may not be unanimous, and an attempt might be made even to reconcile the points of difference between the Fine Arts Commission and the Government. The fact that there has been adverse criticism of the plans does not mean that the First Commissioner has in a sense pulled down his flag, and that the demand of every organised body in Scotland that the best possible plans for the site be secured on competitive bases will now be met. We shall await the official statement with interest.

Architects' Benevolent Society.

AT the annual meeting of the Architects' Benevolent Society, held on May 14 and reported in our last issue, the President, in moving the adoption of the report, drew attention to the fact that the great event during the year had been the appeal to the Allied Societies who had responded very generously both as regards contributions from the Societies themselves and contributions from new donors and subscribers. This had been largely due to the efforts of the local honorary secretaries who had brought the Society to the notice of architects in their area who were not contributors. The scheme had only started and the full effect of the appeal had not yet been felt. They hoped in time to have representatives of all the Societies on the Council, and had already nominated two members, Mr. Francis Jones from Manchester and Mr. C. M. Hadfield from Sheffield. Canvassing was still going on, and no doubt by next year they would be able to welcome a very large number of new representatives on the Council.

Homes for the People in Smyrna.

FACTS of interest were recently described by Sir John Hope Simpson, the Vice-President of the Greek Refugee Settlement Commission, relating to the provision of homes for the half million people who escaped from the massacre at Smyrna in 1922. At first an area was roughly divided into villages, and houses were built with the help of the Commission. Many refugees who live near Athens now make an income by letting their houses to visitors during the summer time at rents for two rooms, often amounting to as much as £40 for the summer. Something has been done in the direction of the decentralisation, and new houses have been built in forty-seven of the smaller towns in Greece. But one result of the building operations carried out by the Greek Government and by the Commission is that the work of the private builder has almost entirely come to an end. The new houses are in many cases already seriously overcrowded. Furthermore, there has been an organised attempt to avoid paying rent, which has largely been successful. The problem of the future of these refugee quarters, consisting of various types of houses, is a serious one. Externally the new Settlement looks comfortable and solid, but within the problems are many.

"Falcon": for Gate Pillar.

MISS PHYLLIS M. BONE, Sculptor.

Similar Conclusions.

A CORRESPONDENT reminds us of the following observation by "John Angus" in an article in *The Builder* of October, 1924. "They (the Erewhonians) came in a roundabout way to the conclusion that it was a mistake to build houses to last too long. Housing Acts were amended to keep pace with the great developments in the design and construction of houses." Our correspondent goes on to say that in the recent debates upon the Housing Bill, Colonel Buchan remarked that Scottish slums were worse than others because they were built of such durable material that they refused to fall to pieces. He adds that it is curious to think of the jerry builder as a slum-clearer in disguise. We have frequently commented upon what seems to us to be a truth—that for a certain class of people the houses last longer than our housing ideals or social theories. We get so far behind that we jeer at an earlier generation, and in reaching too far ahead we think we have found the ideal solution for all time.

"Kid": **Bronze Garden Sculpture.**

Miss Phyllis M. Bone, Sculptor.

Imperial Institute. The annual report for 1929 of the Imperial Institute is a most interesting publication—a record of the utility of the Institute as a link in Empire development. Some indication is given of the extensive work done during the year by the Empire Marketing Board, particularly in the direction of Empire timbers. Architects will have had some opportunity at the Building Trade and other exhibitions of inspecting the many excellent timbers which the British Empire produces, and it is a matter for satisfaction that various secondary woods are being tested with a view to their being placed on the market. The range of subjects dealt with is very great, and gives an insight into the vast resources of our Empire. A matter for congratulation is that the attendance of the public at the Exhibition Galleries has risen to nearly 400,000 as compared with 345,000 in 1928.

Wood Carving. In regard to the more extensive employment of wood carving, the secretaries of the London Cabinet and Upholstery Trades' Federation (Employers) and the National Amalgamated Furnishing Trades' Association, (Operative Carvers) ask our aid in suggesting to architects and others a more generous and widespread use of carved work. Owing partly to general industrial conditions, but perhaps more to changes of fashion, unemployment amongst wood carvers seems much in evidence just now. The austerity and rigidity of much modern furniture design rules out much use of carved work. In a good deal of this modern design the public doubtless find a lack of interest which would be greatly relieved by a more liberal use of carved work. Until this phase has passed (as we think it will) there is not so much scope for the carvers, but we shall all regret if there is not still alive a catholicity of feeling enough to encourage their efforts.

Nottinghamshire Beauty Spots. We are glad to hear that opportunity is being given to the dwellers in Nottinghamshire to visit some of the most beautiful gardens and private grounds in the county. An admission charge of 1s. is being made and the proceeds will go to Nottingham benevolent organisations. It is the best time of the year to see these attractive gardens; spring is at the height of its beauty. We may deplore having to pay for the pleasure of enjoying these beauty spots—although when it is in aid of charity we cannot complain—for England's beauty should be the proud possession of every citizen. But this may make people appreciate what can be attained, and encourage them to give support to the many societies which now exist for preserving the beautiful in our midst. We believe similar facilities are also granted in other parts of the country.

Roads Improvement. Some interesting observations are made in the Annual Report for 1929-30 of the Roads Improvement Association. One such is the statement that a careful and continuous investigation of the capacity of the roads and of the needs of road traffic reveals that an expenditure of at least £100,000,000 is necessary to modernise our highway system. So far, it is stated, the Government have authorised 37 millions to be spent over the next five years. "This is not enough," says the report. "Traffic requirements are increasing rapidly and are already far in advance of road facilities. Danger and congestion due to inadequate road accommodation continue to increase. Road development programmes must be framed upon a more comprehensive basis and carried out with greater speed. A minimum of £10 millions should be spent annually upon road improvement and extension during the next ten years, over and above the expenditure upon general maintenance work. Money expended upon roads would seem to be money well spent looked at both from the standpoints of providing work for a large amount of labour and the lowering of transport costs. Provided that new roads do not tend to disfigure to too great an extent our rural scenery—as in the case of the Guildford-Godalming by-pass road, at present planned to cut through the charming Surrey village of Compton, beloved of G. F. Watts—we commend the scheme.

Shopfront Designs. We suppose that no branch of design has made more rapid strides within the last few years than the shopfront. Shop- and storekeepers have begun to understand the value to them of the efforts of architects and craftsmen in the design of suitable shop fronts. Business firms are finding that there are other means of attracting custom than by showing a heterogeneous mass of articles behind a great expanse of glass. An extended field of operations is thus offered to the architect. A collection of modern shopfronts will be found in the current issue of *Architecture*, which includes work by Messrs. Gordon Jeeves, Grey Wornum, P. J. Westwood, Philip Palmer, Yates, Cook and Darbyshire, Edward Maufe, Joseph Emberton, K. M. B. Cross, amongst others. Professor A. E. Richardson contributes a vigorous article on "Our Nation of Indifferent Shopkeepers," in which he makes an analysis of the faults to which some of our shopkeepers are subject.

Commons and Footpaths Preservation Society. The report of the Commons Open Spaces and Footpaths Preservation Society indicates a wide field of activities which one can hardly doubt is well called for. It is well that rights of way should be properly defined, and we imagine land owners are not generally inclined nowadays to put forward obstructions to public rights and benefits.

The late W. J. Locke. The death of Mr. W. J. Locke, the Secretary of the R.I.B.A. from 1897 to 1907 will have been read with great regret by members of the profession. Those who knew him well could not fail to be impressed by his charming personality, the efficiency with which he looked after the affairs of the Institute, and the assistance he was ever ready to give on professional matters to those members of the Institute who sought it. His courtesy and tact were unfailing, and with a keen sense of humour, good judgment and a cultivated taste, he proved to be a most efficient secretary. While he endeared himself to those who became his intimate friends, his kindly nature and sympathy made him a most popular secretary, whose memory will endure for long.

Royal Academy Exhibition, 1930.

"The Divine Tragedy": **Relief.**

Mr. Robert Kiddey, Sculptor.

GENERAL NEWS

Professional Announcements.

Mr. Alfred H. Durnford, L.R.I.B.A, architect and surveyor, late of the firm of Messrs. Bethell, Swannell & Durnford, has taken offices at Walter House, 418/422, Strand, W.C.2, at which address he will practise, and will be pleased to receive trade catalogues.

R.I.B.A. Examination for District Surveyor.

At the recent R.I.B.A. Statutory Examination for candidates for the office of District Surveyor, one candidate, Mr. Gordon Welch, presented himself, and was successful in the examination.

Advertisements on Railway Arch.

It is learnt that a London postal company has been ordered at Burnham (Bucks) to remove advertisement signs by July 1, or to be penalised 10s. a day after that date. The signs are posted on a railway arch over the Bath road at Taplow, and it was alleged that they spoilt the rural amenities of the village. It was stated that the rental of the signs was £175 a year.

Chantry Bequest.

The following works in the Royal Academy Exhibition have been purchased by the President and Council under the terms of the Chantry bequest:—*Paintings.*—"The Late Dame Millicent Fawcett," by Mrs. A. L. Swynnerton, A.R.A.; "From My Bedroom Window," A. J. Munnings, R.A.; "Cordelia," W. W. Russell, R.A.; "The Chess Player," Sir John Lavery; "The Artist's Mother," Fiddes Watt. *Sculpture.*—"Spring," statue, bronze, Charles Wheeler; "Autumn," statuette, carved ivory, Richard Garbe, A.R.A.

Van Gogh Exhibition.

An exhibition of paintings by Vincent Van Gogh will be opened at the Leicester Galleries, Leicester-square, on Wednesday, May 28. Practically all the thirty works to be shown will be new to English art-lovers, and the canvases will include a self-portrait, hitherto unseen in this country, a portrait of "The man with one eye," "Gauguin's Arm-chair," and his famous picture, "Boats at Saintes-Maries." Simultaneously with the Van Gogh exhibition, Mr. Frank Dobson's new bronze, "Truth," will be shown. It is being acquired by subscription by the Contemporary Art Society.

Municipal County Engineers: Annual Conference.

The programme of the 57th annual general meeting and conference of the Institution of Municipal and County Engineers, to be held at Scarborough, July 9-12, is now published and may be obtained from the Secretary, at 84, Eccleston-square, S.W.1. Headquarters of the Conference will be at the Olympia, and an interesting series of papers will be read. Visits to places of interest in Scarborough and the district have been arranged, while the annual dinner is fixed for the Thursday, at the Grand Hotel, with the President, Mr. J. P. Wakeford, M.Inst.C.E., in the chair.

Royal Opening of India House.

The King will open the new offices of the High Commissioner for India in Aldwych on July 8. His Majesty, who will be accompanied by the Queen, will be received by the High Commissioner, Sir Atul Chatterjee, and will formally open the great gates of Indian timber, which are heavily inset with bronze. The spacious hall is paved with marble, and the arms of the fourteen Indian provinces are inlaid in coloured marbles. The design, by Sir Herbert Baker, A.R.A., was the subject of *The Builder* Calendar this year.

American Naval Memorial for London.

It is stated at the Office of Works that consideration had been given to an application by the American Embassy, on behalf of the United States Battle Monuments Commission, for permission to erect a naval war memorial in London. It is unlikely that the Government will raise any objection to the suggested memorial, although details as to the site have not yet been finally settled. The site suggested for the American memorial which is favoured by the Office of Works is on the south side of the river, near the County Hall, and opposite the British Air Force Memorial, on the north side of the river.

Knapton Church.

The roof of Knapton Church, Norfolk, is threatened by the death-watch beetle. The church was mainly built in the fourteenth century, but the roof, which is of Irish oak, was erected in 1503. According to a pamphlet prepared by Mr. H. R. Loraine on behalf of the church restoration fund, there is a tradition that the roof was not intended for Knapton, but was acquired when the ship carrying it to some other destination was wrecked on the Norfolk coast; but more probably a great storm wrecked many vessels, and the material of this roof was some of the wreckage. How much damage has been caused by the beetle cannot be discovered without careful and costly examination.

ROYAL ACADEMY EXHIBITION, 1930.

"The Slave": Statue.

MISS ERICA LEE, Sculptor.

An American Scholarship.

We learn that Mr. Philip Garforth Freeman has been awarded a scholarship in architecture at Yale University. Mr. Freeman is a graduate of the Liverpool School of Architecture, going there with a scholarship from Derby County Council. During his stay there he won the Holt Travelling Scholarship, the Rankin Prize and the White Star Prize. He has been a finalist in the Tite Prize competition, open to the whole profession, and similarly in the Soane Medallion, and now for the second time he is a finalist for the Rome Scholarship. He took his B.Arch. degree with first-class honours in design in the school last year. Unlike most of Professor Reilly's students in the fourth year, Mr. Freeman did not go to America, but went instead as an assistant to Sir Herbert Baker, A.R.A. He is at present assistant to Mr. Joseph Emberton. Only one architectural fellowship was awarded this year.

Proposed New County Offices, Winchester.

In July, 1929, the Winchester Castle Committee reported to the County Council with regard to the need for further accommodation for the departments of the County Council in Winchester, and the Council then authorised the expenditure of a sum of £35,000 for the erection of new offices in Castle-avenue and Castle-yard. The plans to carry out the scheme to provide the accommodation required have been prepared by the County Architect, in consultation with Sir Herbert Baker, A.R.A., who visited the site, and have been laid before the Council. A tender of £26,444 from Messrs. A. E. Jukes, of Southampton, is recommended for acceptance.

A Bristol Exhibition.

An exhibition has been opened in Bristol with the object of bringing the desecration of the countryside home to the public. Several hundred photographs have been taken and are being exhibited to show how ugliness is produced and how beauty may be achieved without sacrificing utility. Major-General Sir Fabian Ware, in opening the exhibition, said that, whether they liked it or not, the age of standardisation had come. A great many people were erecting houses to-day who could not afford to employ an architect, and many were in the hands of unprincipled "jerry-builders." The majority of houses erected by local authorities were put up without an architect's control. He appealed to architects to descend the path of standardisation to the extent of producing a few designs suitable for houses built in the Cotswolds—houses which would harmonise with their surroundings. People who could not afford the expense of calling in an individual architect might be able to take advantage of such designs.

COMPETITION NEWS

Proposed Development of Central Site, Blackpool.

The General Purposes Committee of the Blackpool C.B. has decided to invite competitive designs from architects showing how they would develop the Corporation's site where at present are the town hall, the covered market, and a number of shops. A new town hall and a modern shopping centre are two popular schemes.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Government Officials and Private Practice.

SIR,—I am sorry to trouble you with another letter, but "J. D." demands it. He says I should inform my members of the facts before blaming outsiders for failing to ascertain them. My members *were* fully informed of the facts in the R.I.B.A. Journal.

He says that he agrees with many statements in the letter sent out by the Institute, but why not send it to the Government? It *was* sent to the Government.

IAN MACALISTER,
Secretary, R.I.B.A.

SIR,—I regret delay in replying to Mr. Reeves' letter, which appeared in your issue of May 9. I scarcely think he has proved his case when he accuses me of inconsistency. I have never needed to collect evidence, as it has poured in to me here for many years sometimes at the rate of three cases a day. How Mr. Reeves can expect to know more about the conditions in Scotland than the present writer is somewhat difficult to understand. What constructive idea is necessary to stop a practice which no real sportsman would adopt? Mr. Reeves proposes to correct one abuse by tolerating another. Because an official thinks he is under-paid he is to be allowed to snatch any so-called spare-time work at the expense of men who contribute to his salary. Mr. Reeves surely realises that although he personally does not appear to have suffered from the practice referred to, other architects may have done so. The question of what is a decent salary is a debatable one. We have all met the man who thought he was a genius, and considered he was worth £2,000 a year at least. Such an one might not be worth more than £200 a year to the particular employer he served. Again, we have known men who could put up a better show by the intelligent use of their money with £5 a week than another with £20 a week. Obviously Mr. Reeves cannot support both the practising architect and the whole-time official who does private work.

Do not let us forget the protected condition under which the permanent official works. Three months sick, and other leave within twelve months, without loss of salary. Protected and provided for in old age. No man is compelled to be an official architect, and if he is not satisfied can give it up, as some have been known to do. Mr. Reeves talks about "discreet whispers" in Scotland. What this means I do not know, but certainly I have taken no part in these, having been regarded rather as an indiscreet loudspeaker. I would suggest, in a friendly way, that Mr. Reeves might, with advantage, take a course of logic and moral philosophy, before dealing further with this business.

"J. D." certainly does the Institute an injustice. The Council of the Institute is elected by vote of the members, and it is obvious that they must be trusted wholly to act with discretion and intelligence. It is unfortunate that "J. D." did not report to the Institute earlier what he knew, for if he had done so it is certain his correspondence would have been of great value, as he certainly shows a real understanding of the problem, and his recent contributions to the discussion are marked by a penetrating judgment and contain many sound and convincing arguments.

Now that the Institute has, through its Secretary, publicly declared its policy, there is no further need for me to prove the truth of my statements. The next step is obvious, and it is earnestly hoped that it will be drastic and be taken more speedily than the last.

WILLIAM DAVIDSON.

Calton Jail Scheme.

SIR,—In your issue of May 16, under Parliamentary news, I note, under the above heading, that:—"It is understood that the matter is now likely to be thrown open to public competition." If this is confirmed, Edinburgh and Scotland, owes you, Sir, a note of keen appreciation for the vigorous and watchful manner in which you have championed the cause. The profession, as a whole, is also deeply indebted to you.

I have no official authority to convey to you our thanks, but as an ordinary ratepayer interested in the affairs of the profession generally, I have watched the part you have played in influencing public opinion with keen interest.

We must beware, however, that some new move on the part of Mr. Lansbury, during the holidays, does not deprive us of the fruits of victory.

SCOTLAND YET.

Foolproof Doors for Cinemas.

SIR,—In reference to the calamitous cinema fire at Paisley, why do not local authorities model their regulations on lines similar to those of the London County Council, which insists on "foolproof" doors and devices?

G. B. J. ATHOL,
Secretary, Incorporated Association of Architects and Surveyors.

Charing Cross Bridge.

SIR,—I venture to suggest that the site proposed by the L.C.C. for the new station is in itself quite suitable, and a properly designed station upon this site would not mar the future development of Lambeth. This site and the official scheme appear, however, to have been entirely spoilt by the approach roads proposed by the L.C.C. My alternative scheme, that has been published (*The Builder*, May 2), shows the new bridge, 120 ft. wide, with the new station on the official proposed site and fully screened by a new hotel and blocks of flats with simple and direct sloping approaches in Lambeth and Westminster. No better future architectural treatment could be adopted around the Lion Brewery property if the station be put upon another site. The approach roads, I suggest, are so simple and so obviously superior to the approach roads proposed by the L.C.C., that it is difficult to understand why the L.C.C. has ruled out my design, unless it be on the question of cost.

But my scheme might be considered suitable by curtailing the width of the bridge to 90 ft. or 95 ft., if this rather narrow width be essential, although I think it would be a disaster for future traffic. With this curtailment, and by omitting my two proposed bridge terminals, the widening of Waterloo-road and London-road, beyond Waterloo Station on the south side, and the widening of Bedfordbury on the north side, in order to compare my scheme fairly with the L.C.C. scheme, I submit that my scheme for similar accommodation would be less costly than the official scheme of the L.C.C.

Is it, however, not much better as a business proposition to spend even 30 millions and get back in rates, land values, etc., a large proportion of it, than to spend about 14½ millions, and get back only a small proportion of it, whilst not obtaining a magnificent Empire Monument that all the world would probably flock to see, and thus not gain this great benefit to the trade of London.

I have arranged to extend the exhibition of my bridge model for a few weeks longer until about the end of June, at No. 2, Cockspur-Street, S.W.1.

JOHN MURRAY.

The Late W. J. Locke and the Institute.

SIR,—It may add a befitting note to your obituary of the late distinguished secretary of the R.I.B.A. (1897-1907) if I send you the following quotation from a long letter which the late W. J. Locke wrote me from Les Arcades, Cannes, at the time of his election as Hon. A.R.I.B.A.: "I had a long talk when I was in London in July with our mutual friend, J. W. Simpson, on the things" (to which you refer), "so that you see they are not to be '*the lesser things of the past.*' It is a life-long privilege to me to have served, in the humble way I did, a great profession."

"Only a couple of years ago or so I had to make a man in a book go to the Tyneside, and I remember the sad and dreary day which you recall!" (during the R.I.B.A. Conferences at Newcastle-on-Tyne). "I cannot tell you how I appreciate your writing to me one of your last letters from the Editorial Chair." "Pray accept my most cordial good wishes for happiness in your retirement and my confidence in the indomitable spirit that survives it. Yours very sincerely, W. J. Locke."

When I joined the Institute Charles L. Eastlake, F.R.I.B.A., held the post of secretary, which he resigned to take charge of the National Gallery. W. H. White, F.R.I.B.A., followed him, and distinguished himself chiefly by the issue of the "New Series of the Transactions" (in six volumes, commenced in 1885), the best and most copiously illustrated of the Institute's publications.

MAURICE B. ADAMS.

A SCULPTOR'S EXHIBITION

GOOD sculptors have always been rare in Scotland—at least, since the days when Melrose Abbey was built. Miss Phyllis Bone in her work shows a real appreciation of the relation of sculpture to architecture, and has been most successful in her collaboration with architects.

She studied at Edinburgh College of Art, where she took her diploma in sculpture, after which she went to Paris for two years, working under M. Navellier. Her most important work has been done for the late Sir Robert Lorimer. At the Scottish National War Memorial she worked for three and a half years, doing all the animal sculpture, including all the capitals for the niches and also the gargoyles. For the same architect she also carried out all the Gothic sculpture at St. John's Church, Perth; fourteen concrete animal panels on the new zoology buildings for Edinburgh University, some of which we illustrate; and the gargoyles and rain-water heads on Stowe Chapel, Buckinghamshire. She has also done much garden sculpture in various parts of the country.

Miss Bone is holding an exhibition of her work at Parsons', 315, Oxford-street, W.1, and the remarkable way in which women have made their way in sculptural design in recent years is strikingly illustrated in this exhibition. The chief objects here are detached pieces of sculpture, such as the charming dancing goat which we illustrate. Her feeling for form and texture is well seen in this, and the fine crouching figure of a tiger, which shows definitely the influence of Barye's fine work. The work which we illustrate will appeal to architects for its admirable decorative feeling, and we should feel some confidence in the hope that an artist so gifted will find many opportunities to put her talents to good account. Architects have the influence to bring this about in many ways.

Educational Developments, Essex.

Essex County Council is recommended to expend £68,906 upon various educational development schemes. £17,120 is recommended for the enlargement of Leyton Girls' School (higher education); £16,209 for erection of second department, Chingford elementary council school; £23,317 for erection of Clacton-on-Sea proposed senior elementary council school; and £6,514 for additional accommodation at Epping elementary council school. A site has been selected for erection of a junior school at Tilbury. The county architect is Mr. J. Stuart, F.R.I.B.A., Springfield Old Court, Chelmsford.

ANNUAL DINNER.

The annual dinner of the Royal Institute of British Architects was held in the Guildhall, E.C.2, on Thursday, May 15, under the chairmanship of Sir Banister Fletcher, F.R.I.B.A., F.S.A. (President). Among those present were the following:—The Rt. Hon. the Lord Mayor and Lady Mayoress; the Rt. Hon. the Earl of Crawford and Balcarres, K.T., P.C., LL.D., F.S.A.; the Rt. Hon. Viscount Lee of Fareham, P.C., G.C.B.; the Rt. Hon. Viscount Sumner, G.C.B.; the Rt. Hon. Lord Danesfort, K.C.; the Rt. Hon. Lord Riddell; the Hon. Mr. Justice Swift; Lt.-Gen. Sir J. Talbot Hobbs, K.C.B., K.C.M.G.; Sir John Rose Bradford, K.C.M.G., M.D. (President, Royal College of Surgeons); M. E. Pontremoli (President, the Société Centrales des Architectes Français); Sir Hugh Allen, K.C.V.O.; Sir Henry Wood, F.R.A.M.; Sir George and Lady Fowler; Sir Ernest Wild, K.C. (the Recorder of the City of London); Sir Geo. Washington Browne, LL.D., Hon. R.A. (President, Royal Scottish Academy), and Lady Washington Browne; Sir Herbert Baker, A.R.A. (and Lady Baker); Mr. Sidney D. Kitson, M.A., F.S.A. (Hon. Sec., R.I.B.A.); Major R. I. Tasker (Chairman, L.C.C.); Mr. C. Herbert Bedells (President, Surveyors' Institution); Mr. F. Winton Newman (President, Architectural Association); the Rev. Canon S. A. Alexander, M.A.; Mr. F. R. Dale, D.S.O., M.C., M.A. (Headmaster, City of London School); Mr. J. B. Aspinall (City Remembrancer); Mr. T. Barron (President, N.F.B.T.O.); the Rev. Cyril A. Alington, D.D. (Headmaster, Eton College); Mr. R. A. Costain (President, Institute of Builders); Mr. D. B. Niven; Sir Walter Lawrence; Major-Gen. Sir Fabian Ware, K.C.V.O., K.B.E., C.B., C.M.G.; the Very Rev. W. R. Inge, K.C.V.O.; Sir William Llewellyn, K.C.V.O. (President, Royal Academy); Sir Frederick Kenyon, G.B.E., K.C.B., D.Litt.; the High Commissioner for India; the Rt. Hon. Lord Desborough, K.G., K.C.V.O.; the Rt. Hon. Lord Carson, P.C.; the Rt. Hon. the Earl of Haddo, C.B.E., D.L., J.P.; the Countess of Haddo; and Lady Fletcher.

After the customary royal toasts had been proposed and duly honoured,

Sir Ernest Wild, proposing the toast of the R.I.B.A., said technically he was entirely unfitted to deal with the subject of the toast, knowing nothing technically about architecture. But technical knowledge might not be necessary rightly to appreciate a great subject. One might be fond of poetry without being able to compose an ode; one might delight in music without being able to play a note; one might enjoy a beautiful picture without being able to handle the brush; and one might listen with rapt attention to oratory without being able to make an after-dinner speech. Therefore, he had gone to the principia of the Institute, and he had studied the words of that great Charter of Incorporation which was granted by King William IV. in the year 1837, from which he had culled the following words:—"For the general advancement of civil architecture—It being an art esteemed and encouraged in all enlightened nations as tending greatly to promote the domestic convenience of citizens and the public improvement and embellishment of towns and cities." Right faithfully had the Institute deserved the Royal confidence by its advancement of the art of architecture and the control and organisation of architectural education. It had become a great Imperial organisation, comprising, wherever the British flag flew, a confederation of more than 90 architectural societies and a membership of 15,000 architects or students. Verily, the grain of mustard seed had become a tree. Yet they were doomed to avoid the limelight of publicity, or, rather, it avoided them; for the Press was accustomed to ignore the architect, whilst yet mentioning the contractor and the member of Parliament who laid the foundation stone. But was not Solomon's Temple built without sound of axes or hammers? For architects materially and spiritually and psychologically helped to mould the character—not the mere "domestic convenience"—of the citizens of the Empire. Public buildings made or marred the city, just as thatched roofs might make, or petrol pumps mar, the countryside. Nor could the housing problem be solved by erecting models of unsightly uniformity (mustard pots all in a row)—for a man's house should be his castle, not his dungeon. Therefore, he would pray architects continue to create "things of beauty" and to discourage Grosvenor Houses. The President of the Institute was the son of a distinguished architect, a much travelled man—thereby acquiring the necessary culture—a designer of buildings of distinction and an erudite writer and lecturer upon his great subject. He was a many-sided man, for he was a barrister-at-law, which profession is "Jack of all trades and master of none," but to which all trades resorted when differences had to be satisfactorily and comparatively cheaply settled. He was a leading member of the City Council, who had done much to prevent the vandalism which would (in the pagan name of utility) have destroyed nineteen City churches, and he had helped to relieve St. Paul's from a scheme that might have imperilled its not-too-secure foundations. The battle of the bridges remained to be composed, and probably Father Thames would never again be spanned in living lifetime.

The Charman, in response, said the Royal Institute was founded to uphold the character and improve the attainments of the architect, and now, within four years of its centenary, had become recognised as the arbiter of architecture throughout the British Empire. It was, he thought, not generally recognised that the Royal Institute was a genuine Empire product, rooted in the Old Country, and with living branches in the Dominions and Colonies across the seas. This had made him realise that upon the Royal Institute of British Architects the sun never set! The first meeting of the founders of the Institute was held in the Thatched House Tavern, and now, with nearly 100 architectural societies in alliance with it, the Institute had over 15,000 architects and students within its fold. It continued to be consulted by His Majesty's Government, by ecclesiastical, municipal and other authorities all over the Empire on architectural matters, including competitions, assessorships, and arbitrations—all of which indicated universal confidence in its advice.

The architect of to-day had to be ready for all emergencies and invulnerable at all points. He must not only be an expert planner, but was expected to know about the wayward ways of water, the caprices of electricity, the intricacies of plumbing, and the possibilities of gas—besides the proper and economic use of every kind of material. He should be somewhat of a lawyer, and, as trustee for his client, should make his plans suit his client's purse. The Royal Institute realised the increasing importance to architects of a sound and efficient education and training to meet the requirements of their exacting art, and, therefore, guided and largely supported architectural education throughout the Empire at a cost of some £12,000 a year, so that architects were never better equipped than at the present time. The Institute possessed, too, the finest architectural library in the world, and, with its journal, kalendar, lectures, exhibitions, committees, congresses, prizes, studentships and examinations, carried on work of a truly Imperial nature.

It was noticeable that in recent years there had been an increased public interest in architecture which had doubtless been promoted by facilities for travel, by the general practice of photography, and by the Press, so that many people now had a useful knowledge of its historical development. In order to mould public taste and create a love of beautiful buildings, the Royal Institute provided lectures on architecture to children—our future citizens—and many of the public schools had taken up the subject, while the University of London gave a diploma in fine arts, for which the History of Architecture was included. Outside professional work, architects now could, and did, give their time and ability in voluntary service to the public, on local authorities, advisory committees, and panels of architects, not only to provide good buildings, but to preserve them.

There were marked new developments in present-day architecture, but its ultimate tendencies were not easy to foresee, for, although founded on tradition, it had to adapt itself afresh to modern needs and respond to the requirements of the social forces which were unfolding in our midst. There was a great wave of building activity and a great revival of the civic spirit, both in town and country to-day. Here around us, the City of London was being rebuilt, and its scale was being changed by the erection of huge storied business blocks, which vied with each other in height, much as did the family towers in mediæval Italy. Amid these modern monsters our mediæval Guildhall looked shy and modest. If we turned to the country, we found that regional planning committees were promoting much architectural development, and we might well be proud of many housing schemes, which showed a distinct advance on any previous planning of family homes. He said he was convinced that the whole of England, including built-up areas, should be placed under all-embracing regional planning schemes, which should include power to act under architectural advice, in regard to the external design of buildings, if they would safeguard the charm of the countryside. It must, indeed, be obvious that, while we were erecting fine cathedrals, town halls and university buildings in our cities, it was unseemly that obtrusive petrol stations, ugly garages, and unsightly bungalows should mar the beauty of quiet country places, and public authorities should have power to control "ribbon" development, and to prevent the erection of roadside abominations; for the countryside lay open and helpless, ready to be exploited for utility divorced from beauty. Meanwhile, the voluntary work of the Council for the Preservation of Rural England was actively carried on by some of the Institute members. It was also matter for regret that the destruction of fine old buildings, large and small, went on apace, and they were informed that a Cotswold cottage had just now been carted away to America! Old buildings of character were national assets, and should, where possible, be preserved, though it might be possible for them to serve another purpose, as with the mansions of Stowe, Bryanston, and Western Birt, which had been adapted for schools.

We have had much too lively a time of late on matters of destruction, preservation and construction. Among other matters which could be referred to with satisfaction was the successful protest against the official

plans for buildings on the Calton Gaol site in Edinburgh. The rejection of the official Charing Cross Bridge scheme by a Committee of the House of Commons had come with a sense of relief to those who desired a dignified town planning scheme for the centre of London. Public attention was now focused on this problem; the bridge was urgently needed, and the Royal Institute was ready, as it had always been, to co-operate in securing a worthy scheme.

Sir Herbert Baker, proposing the toast of "The Lord Mayor and the Corporation of the City of London," said he would like to say how grateful they were that they had been permitted to hold their annual dinner in the magnificent, historical Guildhall. He had spent most of his life in distant parts of the Empire, where everything was new, and he felt it a privilege to be now permitted to carry out work in the City of London. It was a matter of great wonderment to him to realise as he worked there the richness of its associations. Architects who were carrying out their work in the City were trying to preserve through the aid of craftsmen all those historical associations. At the Bank of England and elsewhere they were preserving all they possibly could of those old buildings, and what they could not actually preserve they were preserving in the spirit, so that he felt that the ancient architects, were it possible for them to see it, would realise that they had not been treated disrespectfully.

The Rt. Hon. the Lord Mayor of London, replying, said he believed there were methods in existence to-day by which the acoustics of their public buildings could be made absolutely perfect, which was not the case in the olden days. With regard to the question of the bridges, from his own observations, he had come to the conclusion that it was not necessary to have additional bridges in the City. What was necessary was to get rid of the traffic that came off the existing bridges, make proper means of communication to those bridges, and, as far as the City was concerned, the traffic difficulty would be removed. Whatever bridge might be necessary for London outside the City, he fervently hoped that the Bridge House Estates Committee would always take a long and broad view, and that they would devote their resources when the time came, not necessarily to provide bridges in the City, but to help to provide bridges where they were most needed for London as a whole. The City Corporation had always been public spirited, and any good works they had done they had done for the benefit of London as a whole.

Mr. Sydney Kitson (hon. secretary, R.I.B.A.), in proposing the toast of "Our Guests," said that he had read somewhere the words of a philosopher who said that hospitality and architecture were the two finest products of civilisation. He would like to thank the author for what he, the speaker, believed to be a profound truth. And, if he would allow him, he would use the saying as a text for the few words he had to say. Firstly, it would be observed that he placed hospitality before architecture; and if one compared the size of that great hall where they were privileged, by the courtesy of the Lord Mayor and the good offices of the President, to offer hospitality to their guests that night, with that small room at the Royal Academy, where the representative output of some ten thousand British architects was annually shown, he thought it would be agreed that the philosopher was right. Secondly, although it placed hospitality before architecture, it would be noticed—and this was the crux of the whole matter—that he coupled them together by the use of the simple word "and." In the same way, architects were endeavouring to couple together the two finest products of civilisation by offering hospitality in this great hall to those whom they delighted to honour. Their guests represented that which was best in English life and thought and action. One exception he must make, and that was to mention the name of M. Pontremoli, who was the President of the French Society of Architects. He represented the life and thought and architectural culture of our neighbours and allies.

Mr. Justice Swift responded, and said they could look back, if not with awe, at any rate with admiration and gratification, to the great work the R.I.B.A. had done since its incorporation, and was still doing. The President and his colleagues, and those who had gone before, had done marvellous work for the improvement of the environment in which they all lived.

"THE BUILDER" DEBATE

PENCIL VERSUS CAMERA.

SIR,—The issue as to whether the drawing is superior to the photograph as a method of education for the student and as to the proper way working drawings should be made by the architect are separate considerations, both of which have entered into the discussion in this debate. In regard to the former as a supplement to the sketch-book, but in no ways to supersede it, the camera offers most valuable aid. It may be that a record is desired of some detail of ornament in a situation too far from the eye on the building to afford easy access of approach for sketching purposes. In such a case we may well take advantage of the help supplied by the camera. It may also occur that the occasion does not allow of the opportunity to make all the sketches desired. In such an instance the camera comes to our aid to supply the deficiency. As an alternative to sketching, its value is of the smallest. We learn but little about form or the reason of beauty, of how and why a thing is beautiful, unless we draw it. We may not then fully know it, but shall take away with us an intimacy of knowledge about the thing studied incomparably more helpful than anything the camera can supply. And if the use of the camera in any way impaired our habit of sketching or became a substitute for it, it would be directly harmful. Nor does the camera record as accurately in regard to essentials. In the field of nature this is particularly so, dwarfing in one case and exaggerating in another, even when brought under the control of the best appliances. Who has not observed, when comparing photograph with sketch, the difference in realisation, assuming the sketcher to be competent with his pencil? How diminished and poor are those mountain forms recorded by the camera by the side of the suggestive lines of the sketch, which has in the artist's hands seized the essentials and secured the features in the just proportion of their scale, distance, and the impression they convey! The camera has conveyed but little of this, and as a substitute for the latter is of relatively little aid.

In the case of architecture the circumstances are not altogether the same. We are photographing, not nature, but art, and here the value of the camera is evident. If familiarity with the beauties of architecture or the masterpieces of painting has been advanced in modern times, we owe much of this to the camera; but the pleasure derived, though it may educate taste, will not tell us much of the how or why of beauty, or, at any rate, in no way incomparable to the information acquired through an accurately drawn sketch. I would therefore advise the use of the sketch-book on all possible occasions in preference to reliance on photographs. The student will never know much about architecture until he draws it. Let him on all occasions fall back on his sketch-book if he would take away lasting impressions, if he would learn the how and why of what he looks at. And let him also be unconcerned as to how his sketches convince others—there is a fatal facility injurious to real observation—if through his searching accuracy of observation they instruct himself. Distrust the immediately attractive sketch, for the student's business is with himself, not to conciliate others. And if on any occasion his camera should intervene to prevent him making a sketch when time was really available, let him regard it as a desertion from the initiative and self-discipline which is required all the time to direct properly his work. The new policy of the Academy in regard to the character of architectural drawing to be encouraged is of importance in the assertion of principles much abused, and therefore derogatory to the prestige of architecture. A desire to win the client by sensational and misleading sketches quite opposed to the legitimate methods which should govern the practice of architecture has done much harm. Moreover, the legitimate and proper representation is a much more interesting thing. Assuming the architect to be an artist, we shall find his perspectives, etc., drawn in a manner which reflects plenty of individuality of outlook and treatment. Instances of this will occur to anyone familiar with the work of architects. Perspective, elevations, plans, are one thing, but the term "sketch" does not apply here, and in considering the subject of debate it is rather sketching as an aid to the student with which we are concerned, and of the immense value of study in this direction there can be no doubt.

NEGATIVE.

*** Correspondence upon this subject is invited.—ED.

OBITUARY

W. J. Locke, Hon. A.R.I.B.A.

Mr. William J. Locke, who was operated on in Paris on April 1, died on May 16.

William John Locke was born in British Guiana in 1863, and was educated at Queen's Royal College, Trinidad. From there he went to St. John's College, Cambridge, taking the Mathematical Tripos in 1884. On leaving the University he obtained a post in one of the Scottish public schools. All this time he had been writing, and in 1895 published his first novel, "At the Gate of Samaria." In 1897 came his chance. The death of the then secretary of the Royal Institute of British Architects, Mr. William H. White, created a vacancy, and out of 57 candidates Locke was appointed in his stead. London and a salaried post gave him an opportunity of which he made good use. During the ten years he spent at Conduit-street he wrote diligently in his leisure hours, and in 1905 he achieved the distinction of a "best seller" with "The Morals of Marcus Ordeyne," following this the next year with "The Beloved Vagabond." In this book the influences of his architectural associations are clearly to be seen in the character created by him of Paragot—the wandering and lovable man of art, letters, and music—erstwhile winner of the Prix de Rome d'Architecture.

This book set the seal on Locke's success, and in 1907 he resigned his appointment at the R.I.B.A. This was accepted with regret, and as the Journal of December 7 of that year records, Mr. Alexander Graham, the hon. secretary, said:—Since Mr. Locke had been with them, the work of the Institute had grown enormously. He had, however, always shown himself able to cope with it and to grasp the many difficulties that had come before him. They could only tender their thanks to him for the services he had rendered, and hope that the career he had chosen in another sphere of art would be as successful as his career had been at the Institute. In March of the following year, Locke was elected Hon. Associate.

To the end of his life William Locke retained an affection for France, which he knew well from his student days onwards.

"ARCHITECTURE OF OUR TIMES."

A MEETING of the Architectural Association was held on Monday at the Association's premises in Bedford-square, Mr. F. Winton Newman, the President, being in the chair. A paper on "Architecture of Our Times" was read by Dr. Erich Mendelsohn.

The lecturer said that to speak in London on modern architecture required both daring and confidence. It required daring because England was still very much in love with its old fashions, and had striven long to adapt Queen Anne and Queen Elizabeth, not to speak of Queen Victoria, with all that they implied to modern times. It inspired confidence that he could not believe that it was his privilege to appear as a unique individual. He was rather the representative of a movement which was certainly not at war with the past, which recognised the beauty of the past, but which realised that this beauty belonged irrecoverably to the past, and had turned to find a separate path of its own towards a modern beauty. This separate path was not a special privilege of any single person or nation, but a necessity for all who saw more than chaos in the world to-day, who saw new shores on the other side of the abyss, and were dreaming of bridges to reach them.

Perhaps, said the lecturer, it would be well to begin by recalling those fundamental principles which had given rise to the new tendencies in architecture. Such a preliminary consideration appeared to be necessary, because architecture, on account of its utilitarian function and close connection with practical science and economics, formed a field which could not be investigated by the light of æsthetic principles alone, and which just on account of those relations with the practical world was much more complex than was often imagined. He would attempt, therefore, to define the fundamental principles of the new architecture, as objectively as it was possible for one who was himself engaged in developing those principles, and to indicate the various tendencies of recent years, the aims of the various architectural schools and the results so far achieved. As a preliminary it would be necessary to formulate certain laws which in architecture, as in the other arts, had been re-discovered, freed from the accretions of generations and purified.

Showing them his slides, the lecturer said that he would like to make clear the difference between wall and front. The Palazzo Strozzi at Florence was an excellent example of what he meant by wall. It was clearly lacking sensuous appeal, and almost absolutely stern. The wide projection of the main cornice, the belt courses between the stories, the fenestration, all indicated that it was a two-dimensional surface, not conceived as existing for itself but only as part of a three-dimensional body. We felt that this wall was an expression of space and represented space itself. In the Palazzo Balbarano at Vicenza the idea of the wall was still clear, because it was still an element of the structure. This might be seen from the cornices, the proportions of the columns and the independent detail. But here we had already the sensuous element. It was attractive, facile, suggestive of space but no longer space pure and simple. To a certain extent it might be regarded as a decorative surface, as an example of transition from wall to front. The Admiralty Palace, Berlin, was a gross example of the mere front, a mixture of styles. There was no feeling for the meaning of the column—its structural function and proportion. Columns, the height of which were implied by their nature, were here prolonged indefinitely, to carry finally a cornice only, while the roof and the load of the roof were carried by the four walls. Moreover, all kinds of historical detail were mixed in an indiscriminate and meaningless medley. We had here the lifeless dividing up of a front which no longer had anything in common with the conception of a living wall. The difference between wall and front was a two-dimensional one. If we extended it further to the whole building, that was to say, if we consider it three-dimensionally, we got the contrast between space and surface.

With a great many more slides, the lecturer applied and explained his principles. Of the Einstein tower, he said that it must be admitted to be a clear architectonic organism. It was at one and the same time an astro-physical institute, built for the purpose of investigating Einstein's theory of relativity, and a monument to the scientist. Consequently, it was not only a piece of architecture, but something in the nature of a piece of sculpture as well. Seen from this point of view, no single part could be taken away either from the mass of the movement, or from the logical development of the building without destroying the whole.

Now it made no difference whether this organic synthesis was achieved harmonically or contrapuntally. Harmonically, the organism must be either horizontal or vertical—horizontal, as in the upright gasometer at Frankfurt-on-Main, where one had a horizontal series of the same element, or very similar elements, or vertical, as in the double church at Schwartzendorp, in Germany, in which the various structural masses were built up one on top of the other, and seemed, finally, forced out of themselves into the air.

Now after these analogies and comparisons, he would like to ask on what was the new architecture built? What right had we to speak of a new architecture at all? Did we do so to strengthen our own position, especially as we emphasised so strongly that modern architecture involved fundamentally new principles, or did we set too high a value on our own time? Modern architecture, he thought, was not merely a matter of fashion, or to put it more seriously, was not a further development of mere form. Form as such had never implied releasing a revolutionary energy. This energy, the creative impulse of the new architecture, was born with the appearance of the new building materials—iron, steel, and reinforced concrete. The principle of construction embodied in the Greek temple was the principle of support and load. That was, the load of the beams of the roof, and of snow and wind pressure, was transmitted by the architrave to the supporting columns or pillars placed at comparatively close intervals. The principle of construction characteristic of the Middle Ages was that of pillar and vault. Here the weight of the roof and the shearing force of the vault was transmitted to the walls. The main load was supported by means of buttresses, the walls being practically eliminated as load-supporters through being pierced by enormous windows. Both constructive principles supported a load. Pillar and vault deal only with compressive forces, whereas the principle of our time, the steel girder (in consequence of the fact that steel allows both of compression and tension), transferred the weight of the roof, with the wind and snow pressure, from almost unlimited space to a single point, the focal point of the load. Just as there was no connection between the classic principle of support and load, and the Gothic principle of pillar and vault—either as regards technique or architectural form—we must clearly recognise that the first steel girder meant for us nothing less than the same feeling of release as that with which the Middle Ages greeted the first vault as a triumph over the principle of classic construction. But the adaptation of our feeling and aesthetic talent to the principle of tension involved in steel and reinforced concrete was necessarily a slow process. It took time to get free from the influence of tradition and to become so imbued with the new ideas that judgment was a kind of instinct.

Here, said the lecturer, it might be as well to interpolate a few remarks on the exact meaning of the phrase utilitarian building. Up to more recent times this term was a welcome refuge for all who did not wish to understand the new order of things, and who looked down on the new building material as a mere technical device, a practical means of construction invented by industry for its purpose alone. But industry in inventing new material, or causing it to be invented, was obliged to create the necessary means of production, machines and factories, and these provided the new architecture with its characteristic tasks, emerging from the first primitive workshop to the gigantic plant of the big industrial concerns. By doing so industry transcended its original material aims and became both starting point and bearer of the new movement. The inexorable logic of this development was astonishing. Building technique and architectural form simultaneously achieved a common basis when machinery enormously increased industrial production, both as regarded the quality and quantity. The effects of the War, the number of new factories, the necessity of increasing their earning power in consequence of general economic pressure, the competition between the countries of Europe and the almost incredible economic expansion of America, had all made it necessary to introduce new methods of production, according to the principle of the greatest increase in production combined with the lowest cost. This rationalisation along American lines necessitated a fundamental reorganisation and extension of the mechanical plant to which building and building technique had to adapt themselves. New inventions, new building materials, and new building machinery were nowadays the decisive factors in building technique. The introduction into architecture of the idea of standard parts, essential to modern machine construction, rejected the wild, formless growth of former unorganised ages, and organised the technique in order to arrive once more at primary architectural forms. Their characteristics were consequently no longer subject to individual limitations, but were already uniform signs of the fundamental change. Skeleton construction replaced solid walls. Works in steel and reinforced concrete replaced the homogeneous mass. The wall having to support both itself and its load was limited in its openings, both of doors and windows. The wall, free of load, on the other hand, opened up the whole surfaces between the structural supports. The result was a movement towards instead of away from the light. With the help of glass we softened the outlines of the architectural masses and made the latter transparent and airy where formerly they were heavy and solid. We made them fly by means of cantilevers where formerly they lay heavy on the ground.

The assembled building, like a machine, replaced hand labour. We guarded against the wastage of human labour, even as we avoided the wastage of material characteristic of former times. We rationalised human labour and building materials like any other raw materials. We rendered building a form of industrial production, and transformed the craft of building into a building industry. We eliminated the contradiction between human efficiency and

machine work by regarding both as a law of material and ideal self-preservation. Only by such means can we attain the homogeneous form by which the loading of our new material could be uniformly applied to industry, transport, and building. Since the products of industry, owing to the clarity and precision of their shape, gave the most authentic evidence of the new capacity for form, since our modern means of communication were the purest symbols of the spirit and impulse of the age, so did our building, recorded as architectural production, draw its sustenance from the same soil as had given form and shape to technical construction.

Thus industrial construction was leading the way towards a new style of architecture, and that was why the distinction between the utilitarian building and the non-utilitarian one had lost all meaning for present-day building. In every building the practical purpose must necessarily underlie the plan. The first consideration was the convenience of the building and its various parts. For the constructional problem there must be provided a safe, correct, and typical solution. Systems had been built up around such perfectly obvious matters. Feeling was opposed to purpose, but such terms as utilitarian and non-utilitarian usually arose from the superficial ideas of the layman.

He had tried to demonstrate that all these basic principles found their living expression only in the architectural example might assume either a harmonic or a contrapuntal form. He had endeavoured to make it clear from the consideration of the change in structural conditions, due to the new building materials, how inevitably we were compelled to build in a fundamentally new architecture, and how all the other phenomena of our time had contributed to the birth and growth of this building. Naturally he assumed that it was obvious that all examples shown were only traditional forms which would lead to a common architectural basis sooner or later, according to the speed of development imposed by t he times. To attain this future goal really seemed to be the task of the responsible architects of to-day, as of all who were taking part in the cultural life of nations. The advent of this goal would mean nothing less than the arrival of a culture equal to that of any of the great epochs in the history of mankind—a culture capable of providing a common spiritual basis for all races, whether they be powerful single States or great Continental economic units, just as formerly Egypt, Greece, and the Christian Middle Ages in turn united the whole known earth or Europe under the dominion of a single spiritual will.

America had already destroyed the inviolability of its pseudo-Renaissance façades by its recent laws, such as the zoning law of the year 1920, brought about by a recognition of the new ideas of our American colleagues almost without their knowledge and against their will. Russia was now beginning to correct the exaggerations of what from the revolutionary standpoint was its heroic age, and to modify its paper designs in the light of experience gained from practical building according to the dictates of reason and the conditions actually prevailing. Japan and the Far East, the principles of whose tradition were anchored in their religions, were adopting the constructive laws of the technical world. Even the countries of the Mediterranean, which produced pillar and tympanum, had come to value the concreteness of the new materials more highly than the decorative memories of past ages. Finally he believed the fire of the new movement had come to warm England and the Scandinavian countries, which, in consequence both of climate and temperament, are essentially moderate. They were naturally averse from extravagant experiments and apparently wedded to a classicism which stood to be considered as an example. There had been a development within the last seventy years from the Crystal Palace here at London and the Eiffel Tower to the latest almost classical achievements in the new architecture based on similar requirements and a similar mental attitude amongst the people of all nations. It led, as we believed, from the decline of civilisation to the birth of a new culture, a creative culture, and that was why it transcended all that was purely national; it contained the elements of a new and universal will. At a time like the present the important thing was not to concentrate on a part of the technique or the results, not to praise or discourage any individual achievement, but to bear in mind the ultimate goal. We should consider our chief duty to be the furtherance of the new architectural principles as containing the promise of the future.

A vote of thanks was moved by Mr. H. M. Robertson and seconded by Mr. G. Grey Wornum. It was supported by several other speakers and very heartily accorded.

During the evening the elected officers and council for session 1930-1931 were announced:—President, Mr. G. Grey Wornum, F.R.I.B.A.; vice-presidents, Messrs. A. B. Knapp Fisher, F.R.I.B.A., and C. H. James, F.R.I.B.A.; hon. treasurer, Mr. C. Lovett-Gill, F.R.I.B.A.; hon. secretary, Mr. L. H. Bucknell, A.R.I.B.A.; hon. librarian, Mr. Lionel G. Pearson, F.R.I.B.A.; hon. editor, "Architectural Association Journal," Mr. G. R. Dawbarn, M.A., A.R.I.B.A.; past president, Mr. F. Winton Newman, F.R.I.B.A. Ordinary members of the council:—Messrs. G. W. Home, A.R.I.B.A.; W. M. Keesey, A.R.I.B.A.; A. W. Kenyon, F.R.I.B.A.; J. R. Leathart, F.R.I.B.A.; Edward Maufe, F.R.I.B.A.; O. P. Milne, F.R.I.B.A.; Hon. H. A. Pakington, A.R.I.B.A.; Stanley C. Ramsey, F.R.I.B.A.; C. D. St. Leger, M.A., A.R.I.B.A.; and E. Berry Webber, A.R.I.B.A.

EXHIBITION AT THE A.A.

To the modernist, this exhibition of work by Dr. Erich Mendelsohn is of much interest; to the traditionist, it will make little, if any appeal, as he will believe it to be but a passing phase. Individual taste, of course, varies, which is as well, for otherwise, should this style of architecture become general, it would be a poor outlook for some of our best architects. We look for beauty and seek enlightenment in the works shown at this exhibition, but we are disappointed. Utility and economy may be indicated, but nothing more. We hear much of the cry to spare the countryside; but may we hope to be spared these prison-like structures. Brightness and well-proportioned building is what we hope for to brighten our streets, but what could be more depressing than some of these austere buildings in a climate like ours, where we get all too little sunshine.

The exhibition is a small one, and will remain open until June 14. Of the exhibits, a "Cinema, 1928," is a structure in brick with stone or cast concrete dressings, comprising a number of shops with the cinema at the end. The cinema entrance appears to be enclosed with collapsible iron railings. Ample allowance has been made for advertising matter, the heights of the fascia more than exceeding the height of railings; the relationship, one to the other, appears ill-proportioned. There is no special architectural treatment or features, nor does the building in any way denote its purpose as a cinema. The interior is extremely plain: no distraction for the eye, as in our London cinemas, which are certainly not deficient in decoration. From the spectator's point of view, the picture is the centre of vision, which is as it should be. We are informed that the colour scheme is excellent; this it is not possible to judge from the photographs. No plan was on view. A factory in reinforced concrete (Krasnoie Snamja, Russia), is obviously a factory, and no more need be said.

"Peterdorf Store, Breslau," is of steel construction, with cantilevers, and is a severe structure, six stories high, amply lighted with a continuous run of windows.

The interior also, in this case, is devoid of any architectural trimmings. No doubt the goods on sale would supply the interest, and possibly, colour. "Club-House of the Motor Yacht Club, Wannsee, 1927," might easily be mistaken for a factory but for its title. Other buildings of similar character are on view. While welcoming progress and good modern architecture, we cannot think the examples of this type of work can be of much value to our young architects, though much may be learned in construction. Suggestive though the exhibition is, we do not think its influence on the New R.I.B.A. Premises competitors will be great.

CHARING CROSS BRIDGE PROPOSALS

In the course of a letter to *The Times*, on Monday, Lord Crawford writes, in reference to the Charing Cross Bridge: "I rejoice that Sir Henry Cautley and his colleagues pronounced the official scheme inadequate. They did not appear to do so because the position allotted to the new station was too prominent, as Mr. Pick seems to think. Their decision was based on large considerations of town planning, and the scheme collapsed because town planning had been ignored. How could it be otherwise? For the Ministry of Transport has, in fact, been the promoter of the Bill. Having provided most of the money, it claimed the right to call the tune—to control the scheme, witnesses, and so on; but the Ministry as such is not concerned with town planning. Its function, as laid down in the establishing Act is 'to improve the means of and facilities for locomotion and transport.' It is not cognizant of housing, zoning, education, recreation, open spaces, and other fundamental matters governing the social life of urban communities; nor are the Ministry's road committees and advisory panels adapted to these objectives of town planning.

"Mr. Pick tells us that traffic considerations must be dominant. This is a misconception which indicates the source of the whole failure. The dominant consideration is, of course, town planning. Roads and bridges are the handmaidens of the area as a whole, and should only be designed in relation to the general requirements. In this case, the road was projected before the area was planned—a blunder which has not been committed in a big Continental town for 40 years. It is useless to scold the architects. Mr. Pick says they are servants, not masters, and that they must be taught their proper place and function; he may rest assured that they are not responsible for the situation. The failure arose because a town-planning scheme was prepared by an authority not equipped for town planning. The treatment of town transport in isolation is wrong in principle, and we have only been saved by the common sense of a Parliamentary Committee from a costly and irretrievable mistake.

"Before further action is taken by the Ministry of Transport experienced town planners, including those on the L.C.C. and in the Ministry of Health, should be consulted. A cheaper, quicker, and more workable scheme will emerge."

Government and Charing Cross Bill.

Mr. Morrison, the Minister of Transport, said in the House of Commons on Wednesday afternoon that the next step on the Charing Cross Bridge scheme rested with the L.C.C. If they asked for re-committal of the Bill to give Parliament another chance of expressing its views, the Government, while leaving it to the free vote of the House, would advise the adoption of that course.

ILLUSTRATIONS

PLATES

Our Royal Academy illustrations this week include a pen-and-ink view, by Mr. Raffles Davison, of "Scheme of Extension for a Museum Building at Newport Castle, Monmouth" (Mr. W. D. Caröe, F.S.A., F.R.I.B.A., architect): and "Church at Westport, Ireland" (Mr. R. M. Butler, F.R.I.B.A., architect).

New Hospital Centre, Birmingham.

The view of the Birmingham Hospital Centre illustrates the design which was successful in the recent limited competition. The building is planned on an axis running north and south, the question of aspect being regarded as of paramount importance, and the pronounced fall of the ground from west to east had therefore to be dealt with in adjusting the relationship between the various departments, so as to provide convenient access between the casualty and out-patients' departments and the main hospital, more particularly the departments for X-ray, electrical, and massage treatment. The last-named departments, administrative offices, kitchens, and chapel are in a central position. Important lines of communication are, as far as possible, independent of each other, this being more especially important in the case of the service from the kitchen. It was desired that the entrance to the medical school (in the foreground of the view) should be as near as possible to the University, and this suggested the transfer of the main hospital entrance to another point on the central axial line, facing that of the nurses' home. The extended form of plan adopted for the medical school was determined by the condition that the physiological department should be 200 yards from the railway. The position of the casualty and out-patients' block to the west of the hospital was dictated by the inconveniently low level of the eastern part of the site. The requirement that the pathological departments of the University and the hospital, together with the mortuary, should communicate, has determined the relative position of these, and the route for funerals from the mortuary has been aligned so that they do not pass in view of the main hospital buildings, while the mortuary is so placed as to be easily accessible from all sections of the hospital. In laying out the grounds, due consideration has been given to the levels and to the general amenities in relation to the various sections of the hospital.

The buildings, where more than two stories in height, would be of steel frame construction in combination with brick casing faced with silver grey bricks so as to harmonise with those portions where reinforced concrete is proposed to be used. This concrete would have a facing aggregate of Derbyshire limestone, wire-brushed to obtain an appropriate texture. The floor panels would be constructed with hollow terra-cotta blocks having reinforced concrete between and over same, and would be laid with terrazzo in divided slabs, except in the wards and day rooms, where teak block flooring would be employed. The usual hospital practice as regards the rounding off of all internal angles would be adopted. Staircases would be of fine grain terrazzo, with dadoes and reinforced concrete balustrades similarly finished. The architects are Messrs. Lanchester and Lodge.

"National House," Moorgate, E.C.2.

This building has been designed by the architects to fulfil the principal requirements of a City commercial building: simplicity, relying entirely for architectural effect on proportion and fenestration and giving at the same time due consideration to the claims of the adjoining owners regarding light and air, which, unless dealt with in the preliminary stages, are inclined to cause considerable trouble and delay. The northern part of the block will be occupied by the National Building Society, the remainder of the block being let as offices. The building will be a steel frame structure and faced with Portland stone.

The general contractors are Messrs. Trollope and Colls, Ltd., of No. 5, Coleman-street, E.C.2, and amongst the sub-contractors are:—Structural steelwork, Moreland, Hayne and Co., Ltd.; heating and hot water supply, Norris Warming Co., Ltd.; electric lighting, L. Sunderland and Co.; bronze work, Starkie, Gardner and Co., Ltd.; carving, J. A. Stevenson; steel casements, Luxfer, Ltd.; sanitary fittings, Pontifex and Sons, Ltd.; pre-cast staircases and terrazzo work, Diespeker and Co., Ltd.; lifts, the Express Lift Co., Ltd., and Medway's Safety Lift Co., Ltd.; wrot-iron lift enclosure, Caston and Co., Ltd.

The architects were Messrs. Henry Tanner, FF.R.I.B.A.

Proposed Shop and Office Building, Bradford.

This design, placed first in the recent "Bradford Central Improvement" competition, is for a large island site in the heart of the city. The whole ground floor is devoted to shop-space (to be subdivided as required) fronting to the various streets and to a central top-lighted arcade. Two yards give back access to the shops and to storage and heating chambers in the basement. The upper part consists of five floors of offices in a simple and uniform arrangement. The greater part of the office-space faces the streets, in a single unbroken sequence of 20 ft. depth, to be divided up as required; the remainder, of less depth, together with the three staircases, lift and lavatory blocks, face on to two internal light areas. The design provides for steel-frame construction with an external facing of Yorkshire stone. The architect is Mr. C. Cowles-Voysey, F.R.I.B.A.

"Rake Holt," Petersfield.

This house was erected in the neighbourhood of Petersfield, Hants, from the designs of Messrs. Unsworth & Goulder, architects, 23, Essex-street, Strand, W.C.2. The exterior is treated with plaster, on which a brilliant cream finish has been obtained by the use of "Atlas White" cement and special washed sand. The roof is covered with Sicilian "over and under" tiles with boldly projecting eaves, and the windows are fitted with painted jalousies. On the south front there is a stone-paved terrace with a sunk garden flanked by pergolas, having plastered brick piers. The living rooms are modern in style with polished walnut flush doors, simple coved cornices, and plain plaster wall panels, the whole being decorated with a glazed scumbled surface. The general contractors were Messrs. G. A. Kemp & Sons, of Greatham, Hants.

"Gilbert's Mead," Little Ann, Andover.

This little house, built for the Misses Poore, is on the outskirts of the attractive village of Little Ann, near Andover, on the slopes of the Downland which is crowned by the "Roman Camp." It is built of 11 in. cavity brick walls, colour-washed a soft pink, the window-sashes being a very light French grey, and the shutters and doors a greeny-blue. The roof is of reed thatch. Internally all plaster work has been left uncoloured and just as finished, a creamy-grey colour, with the ceilings worked in spirals from the wooden float. The architect is Mr. Clough Williams-Ellis, F.R.I.B.A.

Proposed New Church in the Diocese of London.

The church is planned so that practically all the congregation can be seated in the nave and obtain an uninterrupted view of the altar. The aisles are not used for seats, but as passages and processional way. The chancel is in the east of the nave and adjoins a side chapel on the south side. To the north of the chancel are situated the vestries and organ chamber. The baptistry is situated at the west end of the nave. Need for economy has dictated simplicity in treatment. Careful attention has been given to proportion, relying on structural lines and good materials rather than unnecessary detail. York stone copings have been used in conjunction with the walls of local bricks with multi-coloured facings. Sanctuary, chancel, aisles and passages are tiled. The roof is of timber with steel trusses covered with slates, copper nailed. The seating accommodation is for 608, and all seats, except those in chancel, face eastwards, and the space allotted to each person is 3 ft. by 1 ft. 8 in. The estimated cost is about £13,000, exclusive of the upper part of the tower above the level of the choir-vestry roof and exclusive of seating, altar, organ and furniture.

The architect is Mr. Cyril A. Farey, A.R.I.B.A.

House at Wimbledon.

This proposed house, for Mr. Alfred Ornstein, is situated at the corner of Victoria-road and Albert-road, Wimbledon, facing south-west, and having a fine view overlooking the Wimbledon tennis-courts and out beyond. The accommodation consists of four reception rooms, six bedrooms, three bathrooms, the usual offices, and a double garage. The elevations are shown carried out in brindled stocks with red sand-faced dressings and quoins in the traditional eighteenth-century manner. The architects are Messrs. Hayward & Maynard, A.R.I.B.A.

House near Chandler's Ford, Hants.

This house, which is situated on the borders of a large wood, has a simple character externally in keeping with its surroundings. The walls are of local stocks colour washed, and the roofs are covered with black pantiles. The surrounds to the windows, which are of the wooden casement type, are in blue Forest of Dean stone. The architect is Mr. James H. Bolton.

THE LATE A. W. BARNES.

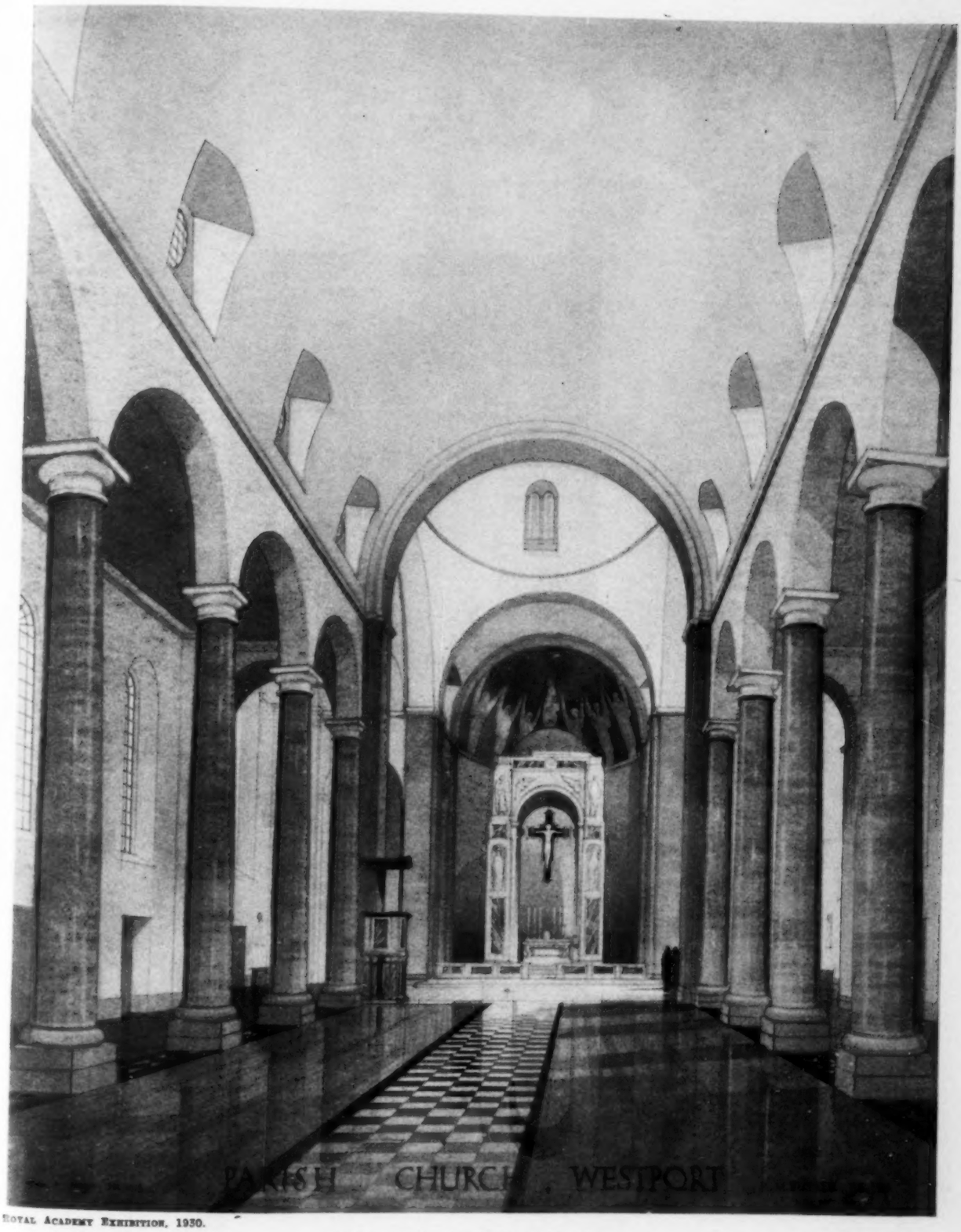
We regret to record the death of Mr. A. W. Barnes. The elder son of the late W S. Barnes, of Leicester, he was educated at the St. Andrew's School, Kettering, and afterwards continued his studies at the Regent-street and Croydon Polytechnics, where he obtained first-class honours of the City and Guilds in domestic engineering. From 1907-1914 Mr. Barnes was engaged in work on the Continent, being for some time resident engineer at the Royal and Splendide Hotels at Evian-les-Bains. During the War he was engaged at Cliffe-at-Hoo on munition work.

Mr. Barnes was well known, both in this country and in America, as a writer upon domestic engineering. Several of his articles appeared in *The Builder*. He visited the United States in 1926 to attend and speak at the conference of the American Society of Sanitary Engineers, and was received at White House by President Coolidge. At the time of his death he was on the staff of the Northern Polytechnic.

So much will be generally known in the profession, and it is largely due to his own reticence that only his intimate friends knew of the many interests he had, and of the work he did, outside his own profession. He was keenly interested in welfare work, and had written two books for young people which had been prefaced by Miss Maude Royden. In addition he was a great lover of English literature and poetry, and had written a guide to the Dickens' country which was published last year. For many years he had been keenly interested in the work and welfare of Charing Cross Hospital, of which he was a life governor, and it was there that he died.

Building Science Abstracts.

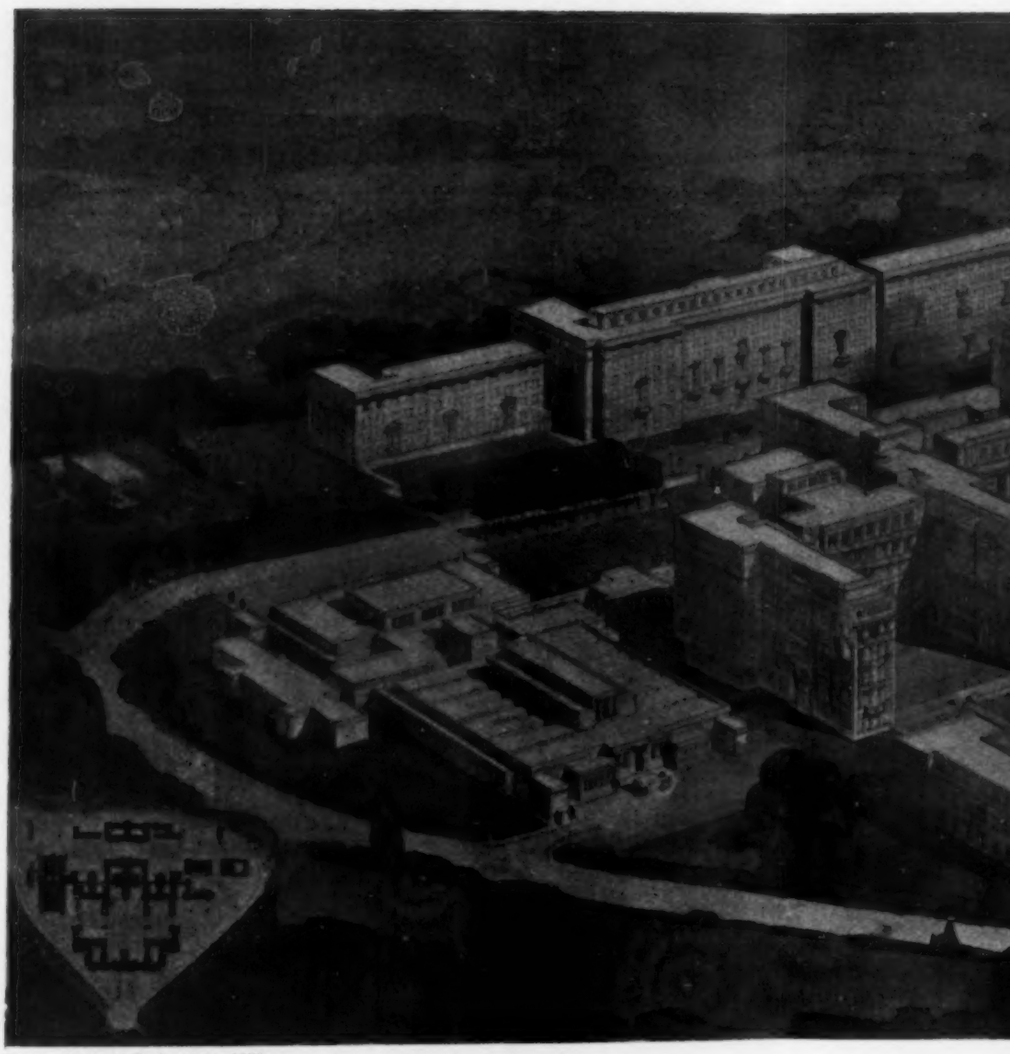
Vol. III. (New Series), No. 3, for March, 1930, Abstracts Nos. 458-670, of Building Science Abstracts have now been issued. Published by the Building Research Station, in conjunction with the Institute of Builders, the issue may be obtained, price 9d., from H.M. Stationery Offices, at Kingsway, W.C.2, or elsewhere.



ROYAL ACADEMY EXHIBITION, 1930.

Interior of Church, Westport, Ireland.

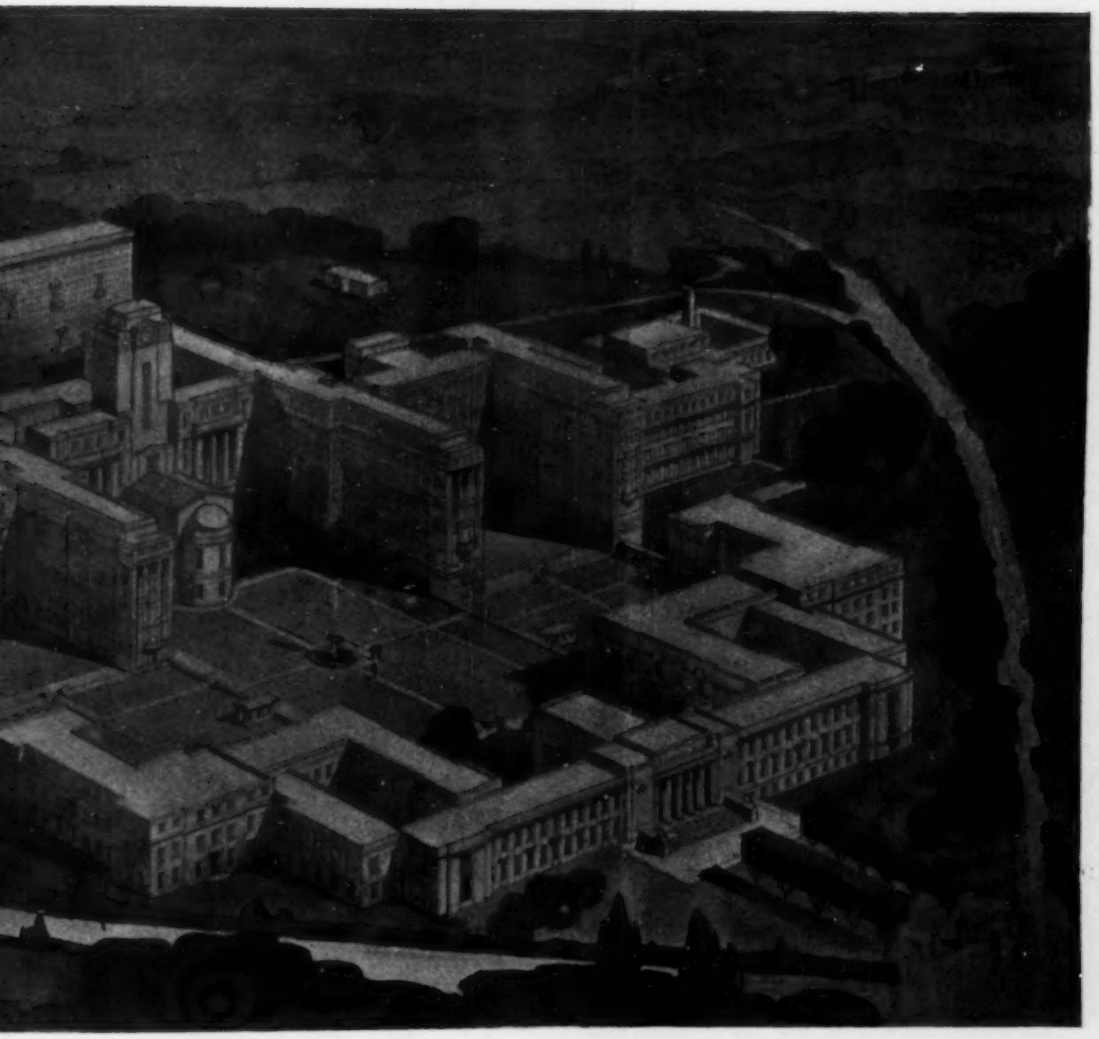
MR. RUDOLPH M. BUTLER, F.R.I.B.A., Architect.



Royal Academy Exhibition, 1930.

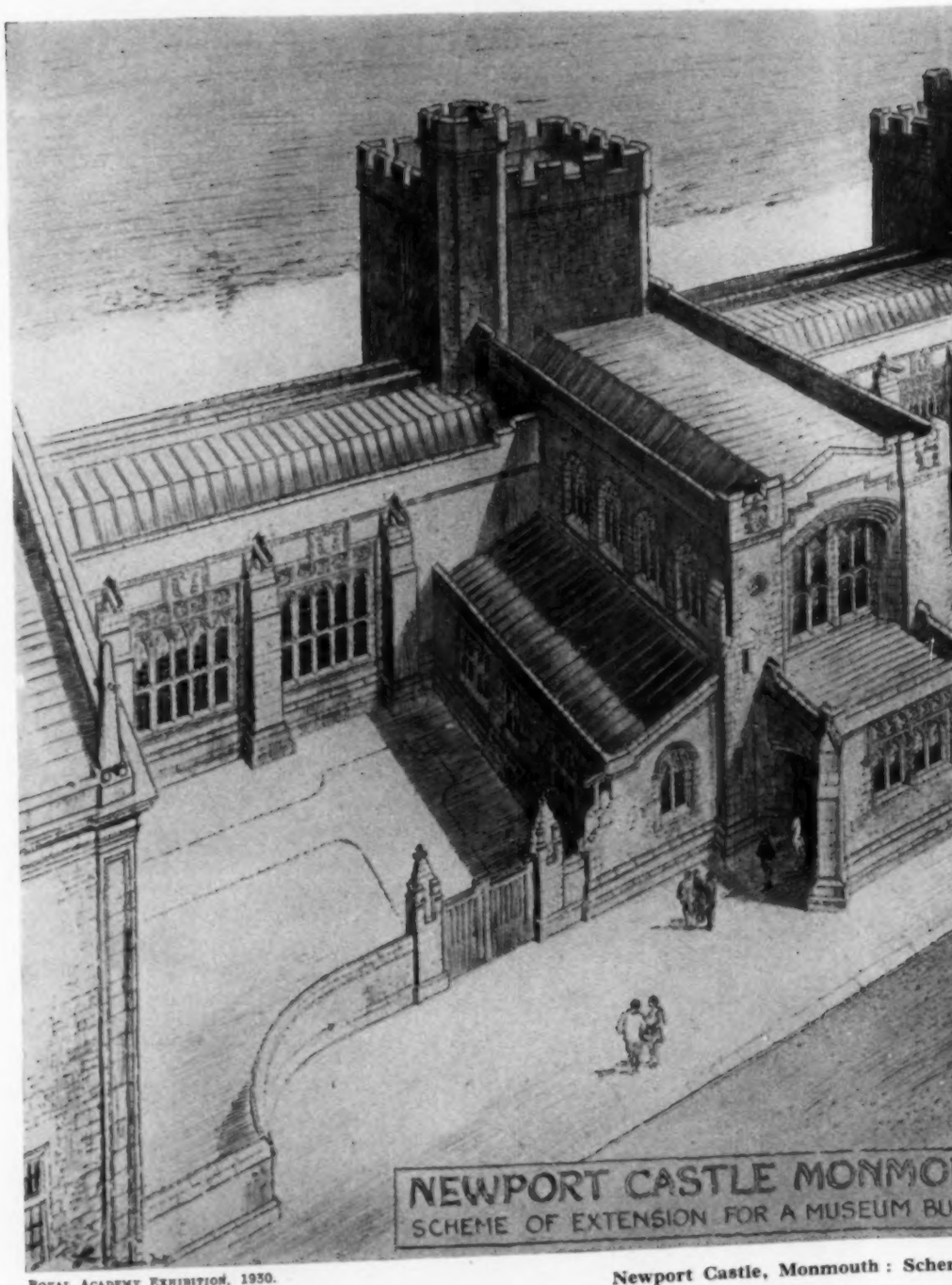
Birmingham H

Messrs. Lanchester & Lod



ngham Hospital Centre.

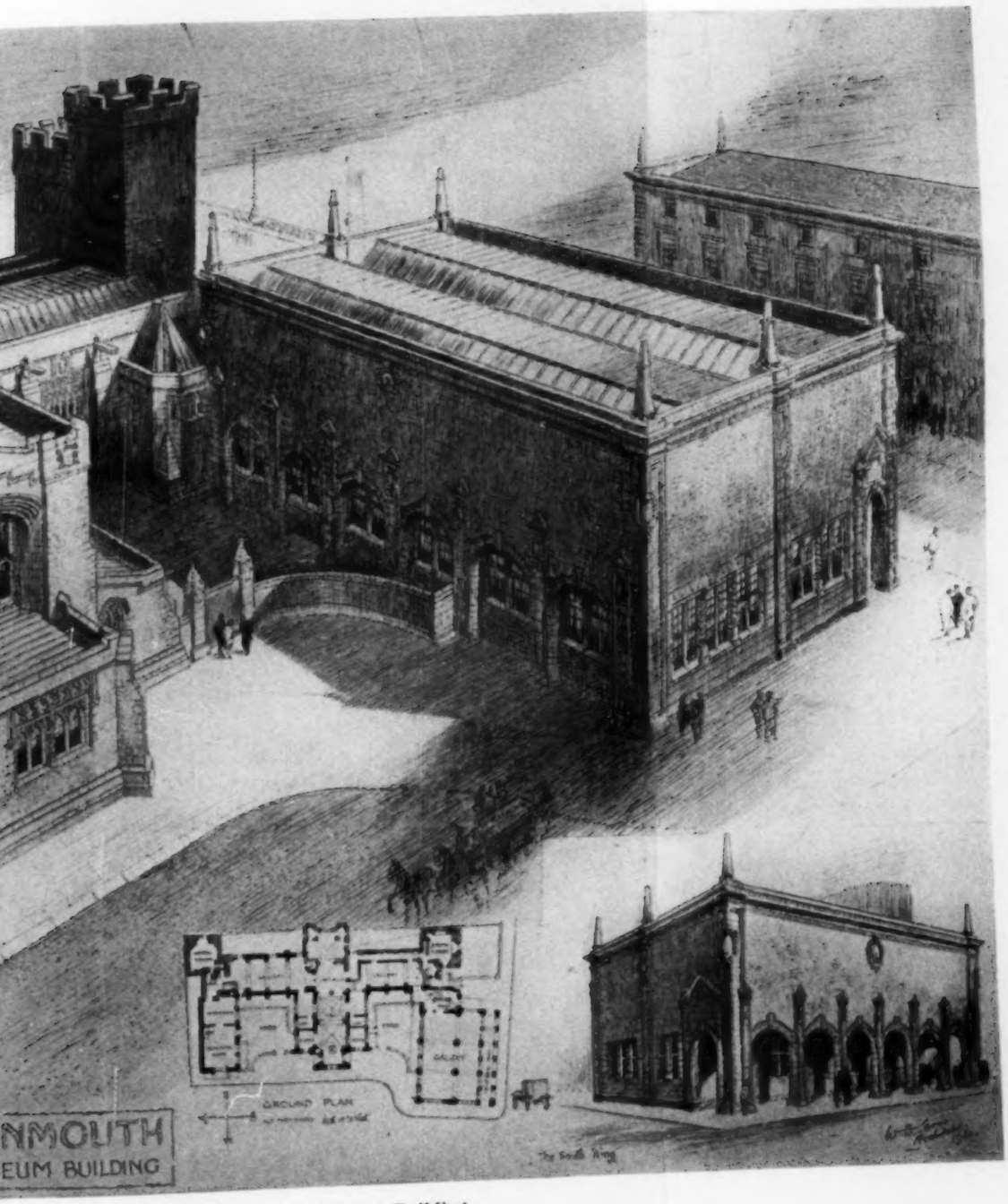
TER & LODGE, FF.R.I.B.A., Architects.



ROYAL ACADEMY EXHIBITION, 1930.

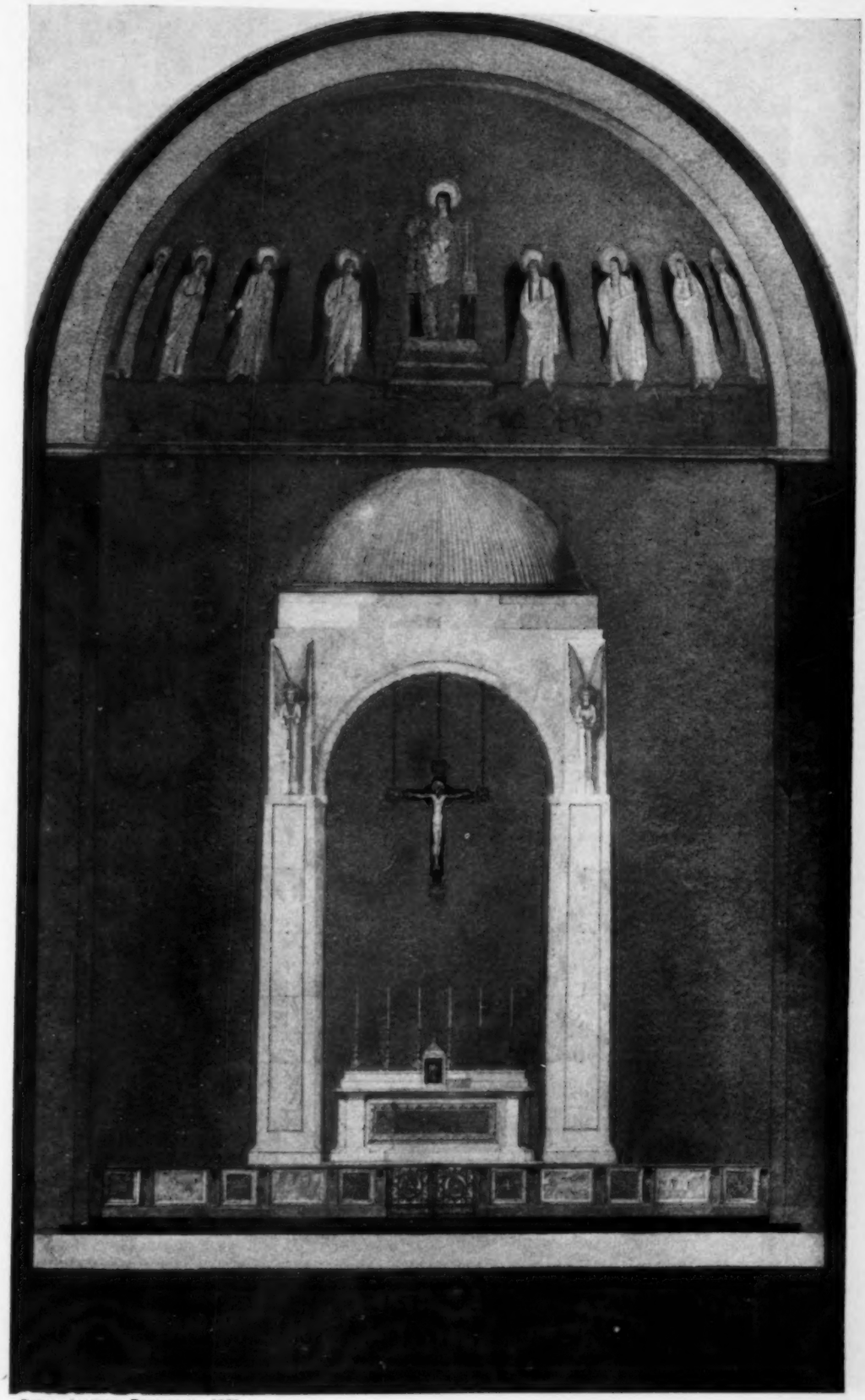
Newport Castle, Monmouth : Schem

MR. W. D. CARÖE, F.S



uth : Scheme of Extension for a Museum Building.

CABÖE, F.S.A., F.R.I.B.A., Architect.



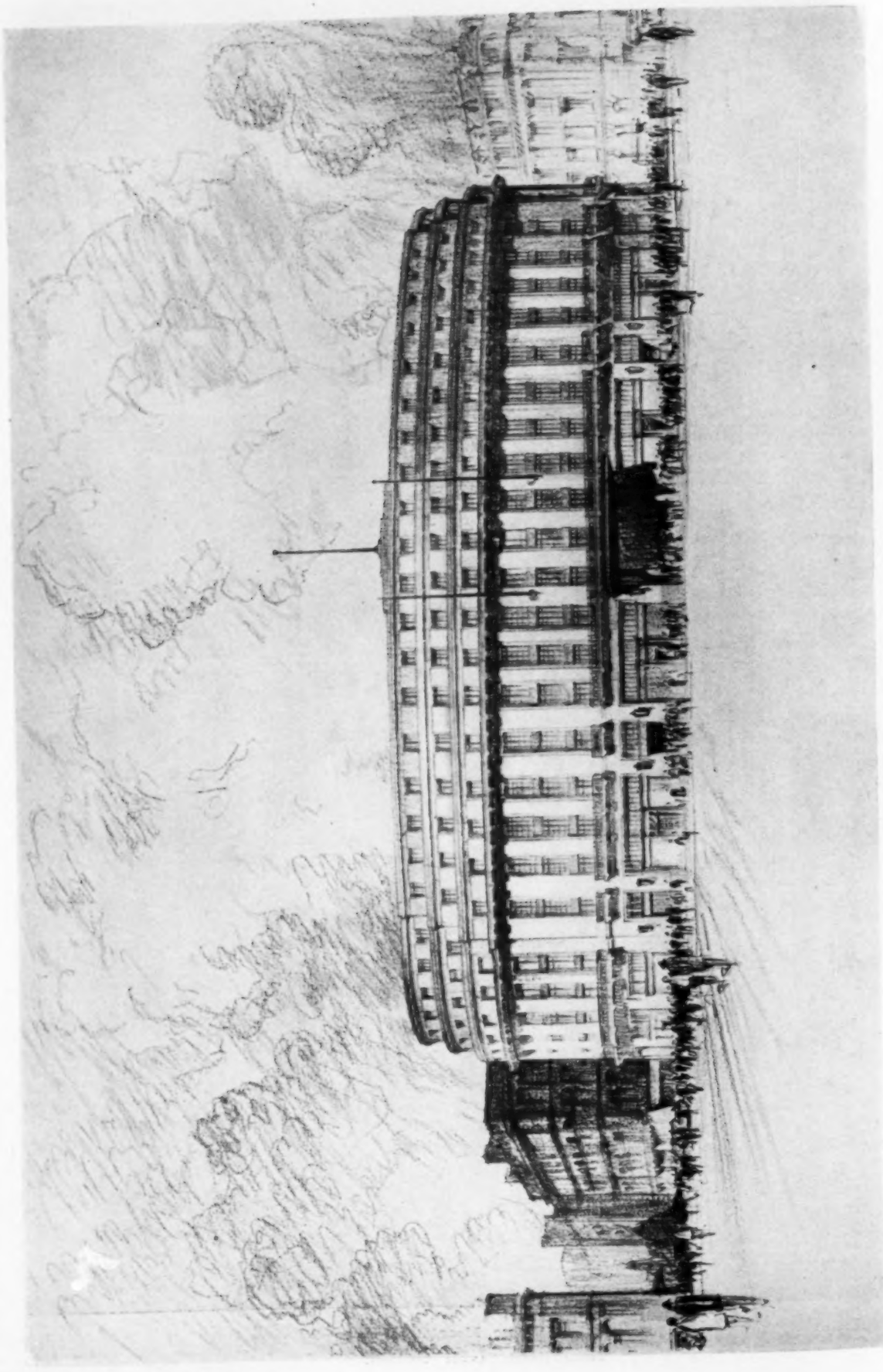
ROYAL ACADEMY EXHIBITION. 1930.

The High Altar, Church at Westport, Ireland.

MR. RUDOLPH M. BUTLER, F.R.I.B.A., Architect.

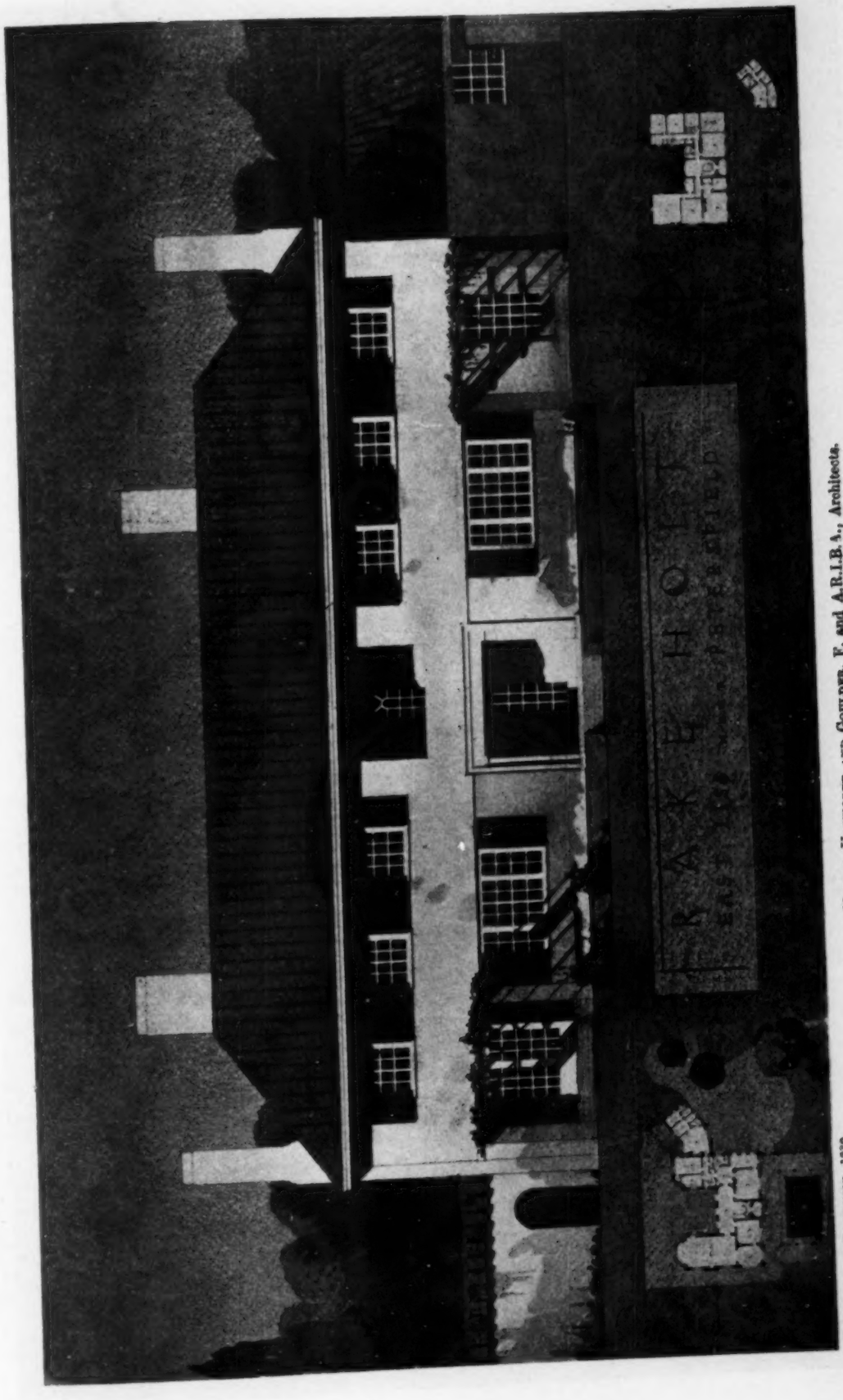
National House, Moorgate, E.C.

MESSRS. HENRY TANNER, Architects.



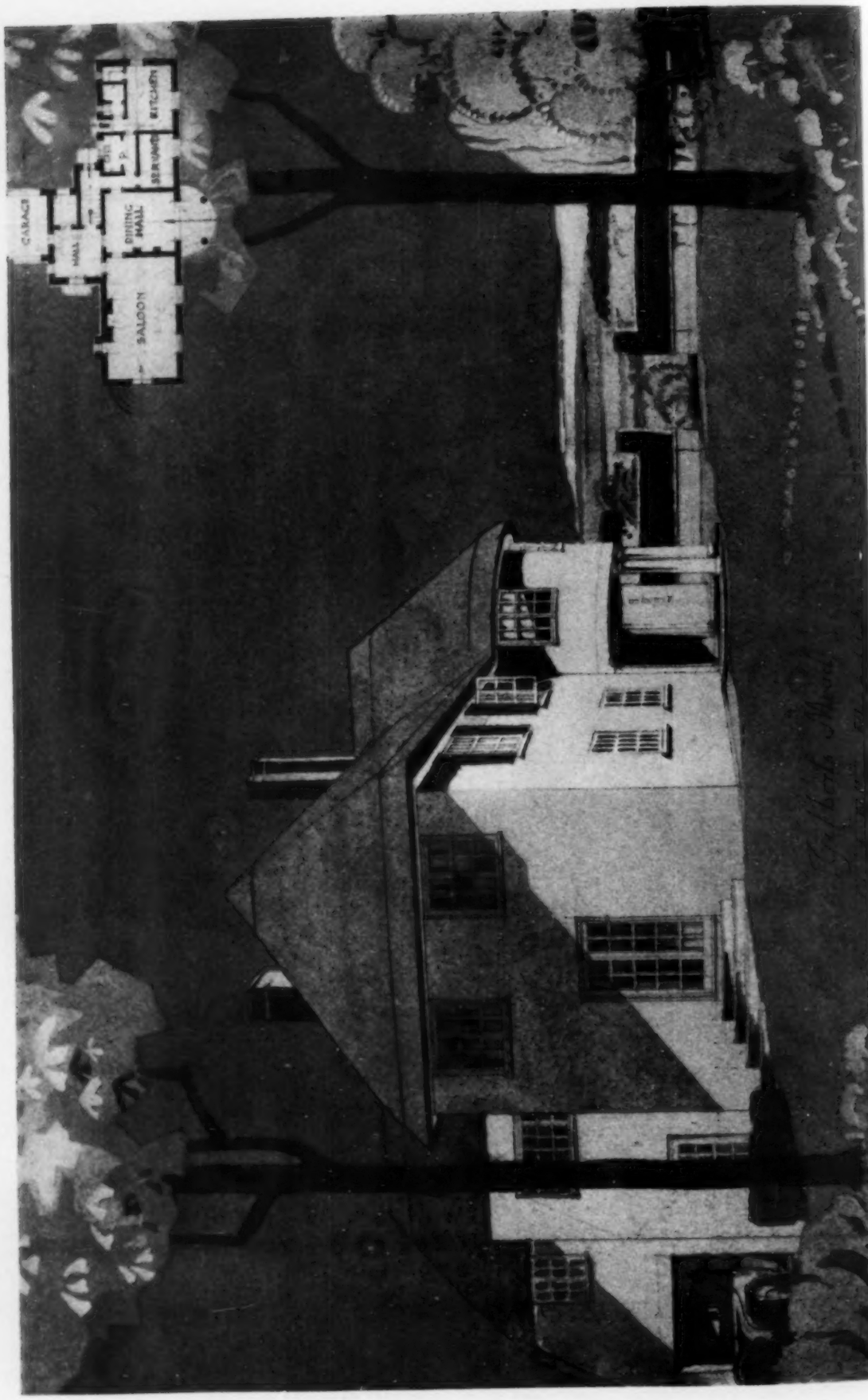
Proposed Office Building at Bradford.
Mr. C. Cowles-Voysey, F.R.I.B.A., Architect.

Royal Academy Exhibition 1930.



ROYAL ACADEMY EXHIBITION, 1930.

MESSRS. UNSWORTH AND GOULDER, F. and A.R.I.B.A., Architects.

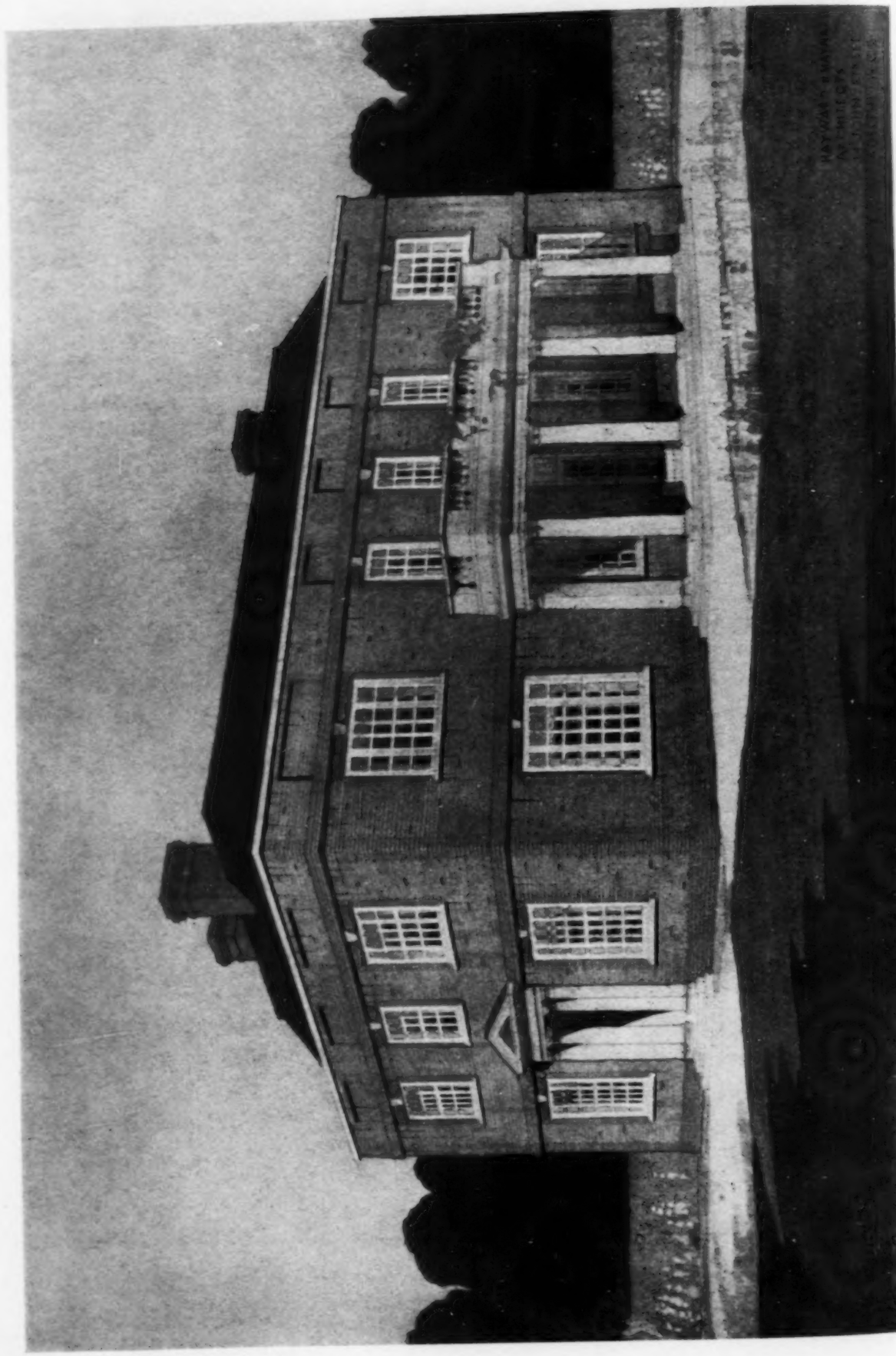


"Gilbert's Mead," Little Ann, near Andover.
Mr. Clough Williams-Ellis, F.R.I.B.A., Architect.

Royal Academy Exhibition, 1930.

Royal Academy Exhibition, 1930.

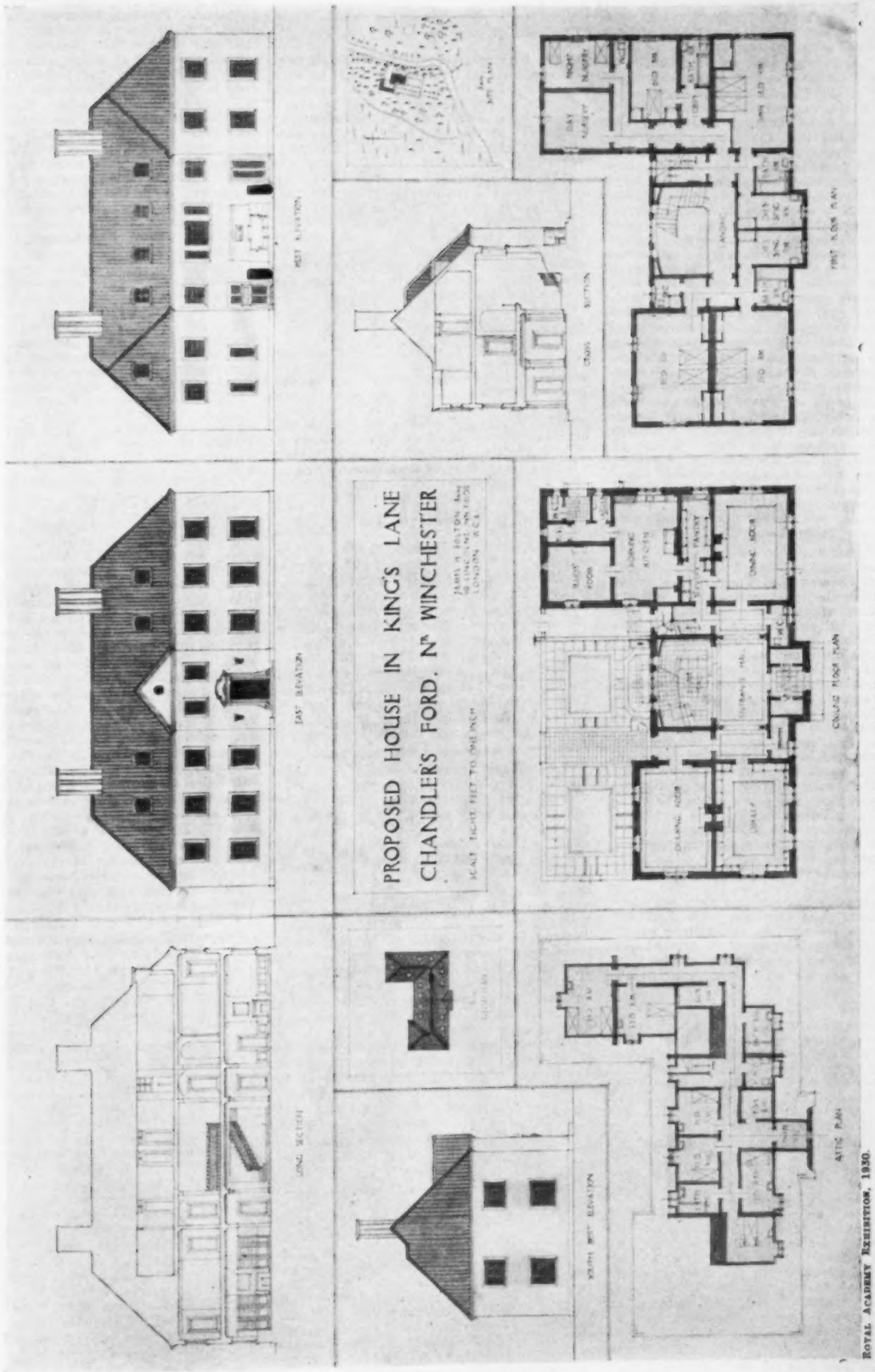
Proposed Church in the Diocese of London.
Mr. Cyril A. Farey, A.R.I.B.A., Architect.



House at Wimbledon.

MESSRS. HAYWARD AND MAYNARD, A.R.I.B.A., Architects.

Royal Academy Exhibition, 1930.



Mr. James H. Bolton, Architect.

Royal Academy Exhibition, 1930.

Messrs. Hayward and Maynard, A.R.I.B.A., Architects.

ACOUSTIC CONSTRUCTION.—X

By C. W. GLOVER, A.M.Inst.C.E., M.I.Struct.E.

INSULATED MUSIC ROOM.

Generally.

The reader is now referred back to Fig. 12, published in *The Builder*, dated April 4, p. 661, in which suggested constructional details for an insulated music room in a large hotel building are given. It will be noted that the interior surface is insulated from the walls and floors, the walls and floors are insulated from the main framing and that there is no structural contact between the lining and the framing. The building is of steel-framed construction, protected by a covering of concrete which is formed in the usual way, except that the concreting of the stanchion casings is carried out as the building of the walls proceeds. It will be seen that the wall panels are built upon an insulation fibre board, a layer of which is also inserted between the top of the brickwork panel and the underside of the upper beam casing. There is also a layer of fibre board insulation between the brick panel and the stanchion casing. The shape of the edges of the brick panel ensures structural strength but the insulating layer of cellulous material minimises the transmission of vibration from the wall panel to the structure or *vice versa*. The importance of adopting some such measures as those outlined above cannot be over-estimated, as many supposedly sound-proof structures built without regard to this somewhat elementary provision have fallen lamentably short of requirements.

Walls.

It will be seen that the construction of the walls embodies the principles set out in the last article, the treatment on one side being suitable for ordinary purposes and on the other for the special purpose of minimising reverberation in the music room. In each case, in order to ensure maximum insulation against the transmission of sound, structural contact between the lining and the walls is avoided. The use of felt behind the studs is to be deprecated, as this material tends to compress in position and lose its insulating value. A good fibre board, however, would maintain its cellular structure under these conditions, and a convenient way of attaching the studding of the lining to the wall would be by first screwing pads of fibre board to the studs so as to provide projecting portions which can in turn be spiked to the wall. It is a mistake to spike straight through the stud into the wall, as the spike itself will transmit vibration to a very considerable extent. The provision of a dead air space is an essential to satisfactory sound insulation as has already been pointed out and the methods of construction shown in the figure provide an air space on both sides of the wall.

Floors.

The floors shown on the drawing are of monolithic reinforced concrete, and with this type of construction it is not easily possible to break structural contact between the floor and the framing. If, however, the floors were designed as free-ended, and an appropriate pre-cast system adopted, such structural insulation could be provided, and this would undoubtedly be an advantage, particularly in the case of a large building in which machinery is installed. To prevent the transmission of contact noises through the floor, some form of insulating medium must be used. This can be provided either by a layer of fibre boards, straw partition boards, or a resilient mastic. An insulating layer of aerated concrete has also proved successful in the elimination of noise through floors, but the selection of any particular material will, of course, be dominated by the special considerations of the work in question.

Ceilings.

We have seen that for the complete elimination of sound transmission through floors the provision of a suspended ceiling is essential. Suspended ceilings commonly used for architectural treatment will not be very effective from the sound insulation point of view unless there is a definite break of structural contact between the suspending members and the floor itself. In the construction suggested in the figure, bolts passing loosely through cardboard sleeves are used for the suspension with pads of fibre boards under large washers below the nut. In this way vibration of the floor will not be transmitted to the ceiling or *vice versa*. No doubt various alternative methods of construction will suggest themselves to the reader, but for satisfactory results from the point of view of sound insulation the general principles set out above should be adhered to.

Structural Vibrations.

The full effect of sound transmission through the members of the structure are but imperfectly realised. Vibration in one part of the structure is conveyed easily through the continuity of solid material and by setting up resonant vibrations recreate sound waves in a position often very remote from the original source of sound.

Tyndall's experiment demonstrates this in a remarkable degree, and his own description is given below. "In a room underneath this, and separated by two floors, is a piano. Through the two floors passes a tin tube, 2½ in. in diameter, and along the axis of this tube passes a rod of deal (wood), the end of which emerges from the floor in front of the lecture table. The rod is clasped by india-rubber bands, which entirely close the tin tube. The lower end of the rod rests upon the sound board of the piano, its upper end being exposed before you. An artist is at this moment engaged at the instrument, but you hear no sound. When, however, a violin is placed upon the end of the rod, the instrument becomes instantly musical, not, however, with the vibrations of its own strings, but with those of the piano. When the violin is removed, the sound ceases."

Under such circumstances, sounds can be transmitted from the basement to the top floor of a building, often without being heard in intermediate floors. If the design of the structure precludes any possibility of breaking continuity of structural contact, very special endeavours must be made to prevent linings of all rooms coming in structural contact with the framework of the building. It is more difficult to stop vibrations in the building structure than those of air-borne sounds. The only effective method of control lies in the interposition of a discontinuity in the path of the vibrations.

THE LONDON SOCIETY

ANNUAL DINNER.

The 22nd dinner of the London Society was held on May 14, at the Hotel Victoria, W.C.2. The Earl of Crawford and Balcarres, P.C., K.T., F.S.A., occupied the chair, and amongst those present were: Marquess of Northampton, Sir Reginald Blomfield, Sir William Wayland, Sir Andrew Taylor, Sir Maurice Gwyer, Sir Alfred Rice-Oxley, Messrs. C. H. St. J. Hornby, Carmichael Thomas, Harold Cox, William Muirhead, R. Farquharson Sharp, H. Genochio, Reginald Blunt, W. R. Davidge, H. H. D. Anderson, Miss L. G. Crum, and Mr. P. W. Lovell.

The loyal toast having been honoured,

The President called upon Lord Northampton to open a discussion upon the subject of "London, as I should like to see it." Lord Northampton said that what he felt about London was that it taught him better to appreciate the country. He would like to see more green spaces and trees in London. There were parts where one could not contrive this, but, on the other hand, there were parts—as Portland-place—where green trees would add largely to the amenities. Turning to the question of housing, overcrowding was a grave problem, and one that was very difficult for the landlord to deal with. The only thing the latter could do, if he were the ground landlord, was to bully the direct tenant to keep only a reasonable number of sub-tenants. One of the things which caused overcrowding was the difficulty of rehousing. People did not like living in the country when they had been used to living in the town. Improved means of transport would help the housing question, and towards that end the speaker suggested the abolishment of horse-drawn traffic and of trams and the duplication of existing lines of the underground railways.

Miss Edith Shackleton said that the essentials of her London were cleaner air, roof-gardens to houses and more seats throughout the town, so that people might sit down. In her London there would not be so much noise. How that was going to be accomplished she did not know, but it was not beyond the ingenuity of man to contrive that. She thought it extraordinary that architects had made no provision for the wet weather to which England was subject. Our shopping streets could surely be designed with arcades or colonnades. Lastly, she would take down a great many railings from the parks and squares.

Sir Reginald Blomfield touched on the Charing Cross Bridge scheme. To-day, he said, it was the fashion for municipal authorities to be responsible for carrying out big improvement schemes. They did a lot of excellent work in an unostentatious way, and he was not decrying their many splendid qualities when he said that the great far-reaching schemes which now and then cropped up required qualities of planning and design often beyond the capabilities of officialdom. We had been told recently that the architect's job was to do what he was told and shut up. He would, said Sir Reginald, speak up for his profession—especially as he was going out of it. It had been said that the engineer was replacing the architect, but that could never come about. The function of the engineer was that of a constructor, but not of a planner: that was the function of the architect. On the subject of London as he would like to see it, the speaker said that the north side of the river was practically fixed. He wished we had more vistas. London had had an opportunity in the Regent-street of Nash, but a ground landlord had prevented the scheme for pushing the street through to Regent's Park from being carried out.

Mr. A. P. Herbert said that his idea of an improved London was one that made proper use of the noble Thames—the so-called pride of London, although a foreigner might be excused for not knowing it existed. He would like to see a fleet of fast—but not too fast—motor-boats which would convey Londoners to and from their work and also on their pleasure. People did not know their London until they had seen it from the river. Until one had done that one had not seen Somerset House or Greenwich Hospital at their best.

Sir Maurice Gwyer put forward the idea that what London wanted was a benevolent tyrant who could not only settle such affairs as Charing Cross but would be given the power to carry them out. There were several things he would like altered, and one concerned the entrances into London. He wished that when the Great West Road was constructed a belt of green fields and trees had been preserved on both sides, and the factories and little houses set back. Further, he would like to see all the railings round the squares removed and the squares themselves laid out to provide resting-places for weary Londoners.

THE TESTING OF FIRE-PROOF SAFES

By G. A. WEDGWOOD, M.Sc., A.M.I.Mech.E., and L. R. UNDERWOOD, Ph.D., G.I.Mech.E.

The protection of the documents and office records against the hazards encountered in a building on fire is a matter of first importance, and there would appear to be some considerable need for reliable experimental evidence as to the actual performance of safes under given test conditions.

In the consideration of the conditions which may obtain in a building on fire, it is seen that a safe may mainly suffer damage in three ways. The safe may be subjected to sudden and intense heat of short duration, or it may be subjected to the impingement of the flames for several hours. Or, again, the safe, originally situated in an upper story of the burning building, may be first heated and then fall, due to the collapse of the floors, into a heap of burning debris, where it may further be subjected to prolonged heating at a fairly high temperature. These three possibilities call for separate tests, and the present article is concerned only with the testing of a safe subjected to the direct action of flames for a period of several hours, such a test being described as a "Heat Endurance Test."

If a test of this kind is to be of any value one must first have some reliable information concerning the temperatures attained throughout the course of a fire in a building, in order that the conditions of the test may be approximately the same as the conditions met with in practice.

From a careful analysis of a large number of actual fires the Underwriters' Laboratory of Chicago has deduced a standard temperature-time curve as shown in Fig. 1, which represents the average temperature attained during the progress of a conflagration. This curve has also been adopted by the U.S. Bureau of Standards and by the Swedish State Testing Laboratory.

In 1928 the U.S. Bureau of Standards carried out some interesting tests with the object of ascertaining the temperatures reached in a building similar in construction to an ordinary office.* Two brick-walled buildings, the one having two and the other five stories respectively, both with combustible interior construction, open stair and lift shafts, were loaded on all floors with waste timber, this superimposed load being a definite weight per square foot of floor space. Then, in order to measure the temperature inside the rooms at various points, 50 thermo-couples were inserted through the outside walls, and about the same number were supported by hollow posts erected on and fixed to the first floor of each building. Fires were started at several parts of the ground floors and thermo-couples indications observed. The results of these tests are shown in Fig. 1, in the form of an average temperature-time curve; and it is to be noted that this curve lies well below the standard temperature-time curve referred to above, and for this reason the latter may be safely accepted as a fair representation of the average highest temperature likely to be obtained in office fires at various times during the course of a conflagration.

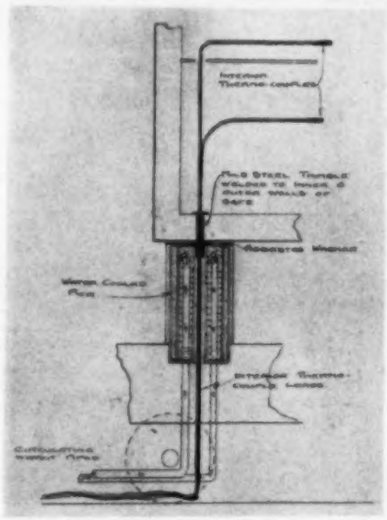


Fig. 5.

If a fireproof safe is to preserve its paper contents intact, the interior temperature must never be allowed to exceed 300 deg. F., as at about this temperature dehydration is accomplished, and the paper begins to perish. Hence, it would appear that in order to make some estimate of the heat-resisting qualities of a fireproof safe, the method of test would be to submit the safe to a rising temperature as represented by a standard temperature-time curve, such as that to which reference has already been made, and to note the time at which the inside of the safe reaches 300 deg. F. Safe manufacturers usually supply a range of specimens offering protection against fire for one or more hours, according to the thickness and quality of the insulation.

This method of test is best applied by placing the safe in a specially constructed gas-fired furnace, by means of which the temperature can be controlled so as to conform to the desired temperature-time curve. The value of the test is, of course, largely comparative. The tests should be carried out on specimens of very nearly the same dimensions and in the same furnace; this ensures that the width of space between the specimen and the furnace is always the same. The width of this space is important on account of two considerations:—(1) It determines the amount of heat which reaches the specimen by radiation from the brickwork; and (2) it determines the velocity of the gas past the sides of the specimen. Both these considerations, together with the temperature and density of the gas affect the wall temperature of the safe.

The same temperature-time curve should be adhered to in all tests, and every effort should be made to secure an equal distribution of temperature on all sides of the specimen. The specimen may be charged with loosely piled books and papers, but care should be taken not to pack these so closely that they are self-protecting; and each specimen should be charged in the same manner, and with the same weight of material.

The furnace employed in the test about to be described is shown in Figs. 2 and 3 and in section in Fig. 4. The furnace was 4 ft. wide, 3 ft. 9 in. deep, and the roof was 9 ft. above the concrete foundation. The walls were constructed of refractory brick, the structure being strengthened by steel uprights at the corners. The front was composed of a brick door built in a steel framework, which could be raised or lowered by chains. The bottom of the combustion chamber was the platform of a movable truck which carried the specimen. A brick flue, surmounted by a steel chimney, served to conduct away the burnt gases and a damper was provided to control the draught. The furnace was heated by rings of high-pressure gas-burners arranged in three tiers, as shown in Fig. 4, and by one low-pressure gas-burner in the floor of the truck. The fuel used was coal gas. A wooden shed was built round the furnace to shield it from draughts.

The method of mounting the specimen on the truck is shown in the photograph and in Fig. 4. The safe was supported by four piers, three of which were built of masonry,

* Nat. Fire Protection Assoc. Vol. 22, No. 1, July, 1928.

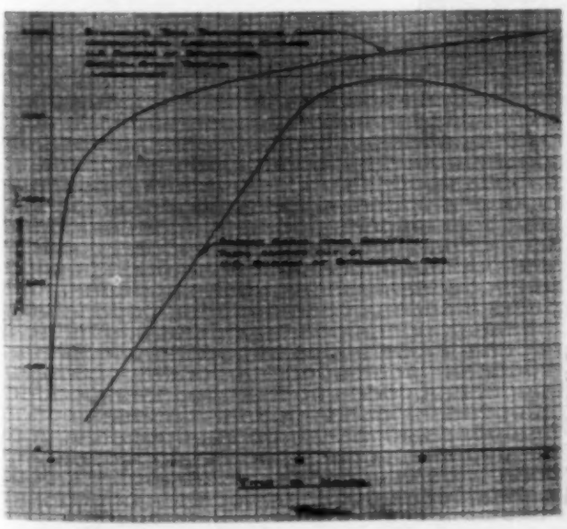


Fig. 1.

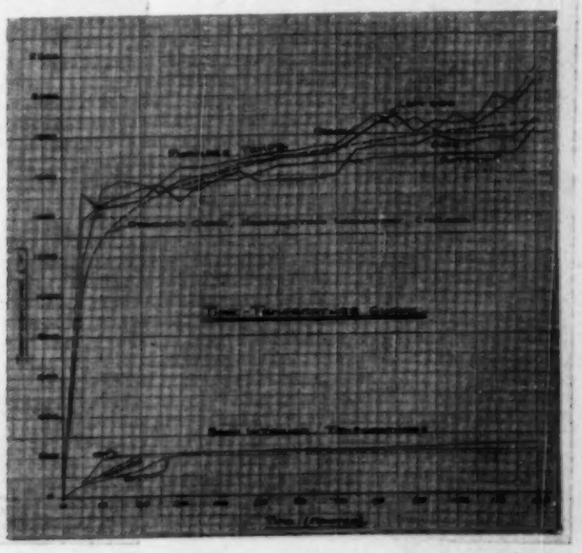


Fig. 7.

and the fourth consisted of an iron tube surrounded by a metal water-jacket suitably lagged and smeared over with fire-clay to the same external size as the other piers. The construction of this fourth pier is shown in greater detail in Fig. 5, in which it is seen that the water-jacket provides protection for the interior thermo-couple leads described later.

The specimen was drilled to receive a steel tube, ¾ in. inside diameter, which was welded to the interior and exterior metal walls, and through this tube the interior thermo-couple leads were passed into the safe, the work of drilling being executed in such a manner as to cause the least damage to the safe insulation. The steel tube, or thimble as it is called in Fig. 5, registered with the hole in the water-cooled pier, and thermal contact between the pier and the bottom of the safe was avoided by the insertion of an asbestos washer.

The flame temperatures were measured by platinum v. platinum-rhodium thermo-couples encased in suitable insulating sheaths. Some of these pyrometers are shown at "A" in Figs. 3 and 4, which also indicate their locations relative to the safe. They were placed approximately opposite to and 4 in. from the mid-points of the sides, and care was taken that no gas jets impinged directly upon them. Experiment showed that in this position the couples gave a fairly true record of the mean temperature of the gas surrounding the specimen. The temperature readings were observed by means of a millivolt-meter which was calibrated to read directly in degrees Fahr.

The thermo-couples employed for measuring the temperature inside the safe had to be specially designed to withstand the severe conditions of service. The positions of the heads of these couples, three in number, are shown in Figs. 4 and 5. The couples were inserted inside the specimen after it had been placed on the piers, and the encased leads had to be sufficiently flexible to bend into position; moreover, the encasement itself had to be made so as to withstand a high temperature, since the paper material stored in the safe sometimes ignites; it also had to be impervious to steam driven off from the paper material or produced by the insulation of the safe. The lead outside the safe had also to be made to withstand severe treatment; as well as being flexible, it had to be impervious to the action of heat and to water. The thermo-electric elements chosen were chromel and constantan, hard soldered together to form the hot-junction. Suitable insulation was adopted to meet the requirements of the rather severe contingencies already mentioned above. The couples were carefully calibrated at the boiling points of water and napthalene, and the freezing points of zinc and lead. The cold junctions were maintained at 32 deg. Fahr. The temperature indications were read by means of a portable potentiometer in terms of millivolts and converted to deg. Fahr.

FIG. 6.

The specimen used in the test about to be described was a fireproof safe intended for the storage of office records. Its external dimensions were 31½ in. wide, 26¼ in. deep, and 48¾ in. high, and its insulation was described by the makers as "Monolith." It was certified to preserve its records for at least 2 hours when exposed to a rising temperature reaching 1,850 deg. Fahr. at the end of two hours.

The object of the test was to determine if this certification was warranted.

The specimen was mounted on the truck, the interior thermo-couples inserted and connected to the potentiometer, the circuit being then tested. The safe was charged with paper, and a maximum reading mercury thermometer was placed with its bulb near the head of the top interior couple. This thermometer provided a check on the temperature given by the thermo-couple. The safe door was then closed, and the truck pushed into the furnace, and in this position it is seen in Fig. 3. The furnace door was lowered, and the front gas burners connected up to the gas supply. The four pyrometers were placed in their appropriate positions, and the water supply to the pier through which the interior leads passed was turned on. At a given signal the furnace was lighted, and the furnace and safe interior temperatures were measured at intervals of five minutes from the commencement of the test.

Every effort was made to obtain a uniform temperature on all sides of the specimen, and to ensure that the rate of temperature rise in the furnace conformed as nearly as possible to the chosen temperature-time curve. As soon as the walls of the safe became sufficiently hot (about 50 minutes from the start) their temperatures were measured by means of an optical pyrometer of the disappearing filament type through sight holes in the furnace walls. Although the surface of the wall of the safe is always at a lower temperature than that of the surrounding flame, the reading of the optical pyrometer provides a valuable check on the readings of the four other fixed pyrometers, and shows at a glance any inequality in the heat distribution.

At the end of two hours, the rate of rise of temperature inside the safe being very slow, the test was concluded. The gas was shut off, the front pyrometer and gas burners were removed, the furnace door was raised, and the safe and truck were withdrawn. The safe was then a bright glowing red, the walls were scaling, and it was observed that the brass knob of the combination lock had melted, but the hinges and lock were still in good order. The walls had bulged to some extent. A stream of water was then directed on the specimen, and when sufficiently cool the safe was removed from the truck and lowered on to two wood blocks and prized open.

Fig. 6 shows the state of the contents at the end of the test. The papers were not

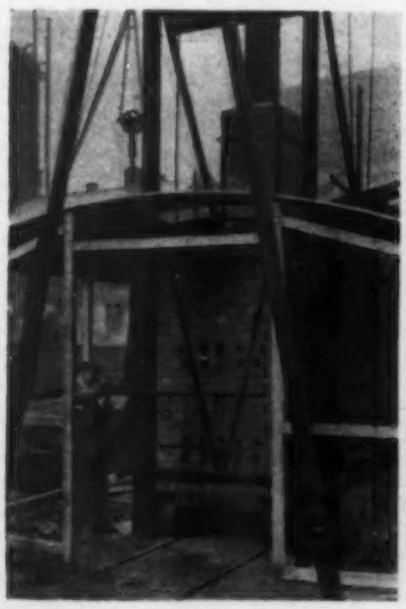


FIG. 2.

FIG. 3.

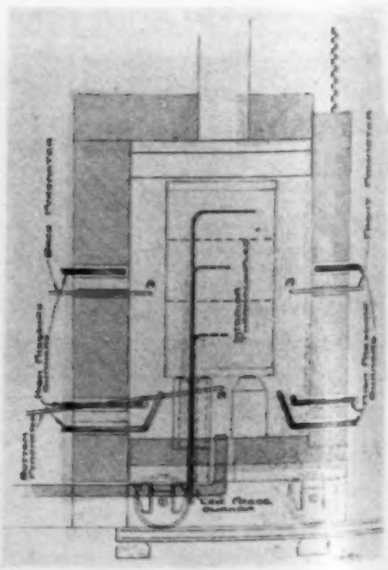


FIG 4.

scorched or blackened in any way, but were naturally dried and cringled. The glue on the backs of the ledgers had melted, but the pages were untouched. A large sum of paper money entrusted to the safe was also preserved intact.

The temperature-time curves obtained in this test are shown in Fig. 7, together with the standard curve of the Underwriters Laboratory of Chicago. Compared with this standard curve, it is seen that the flame temperatures on all sides of the safe as plotted lie above this curve during the first half hour. The temperatures at the bottom and at the back of the safe are subsequently slightly below those represented by the standard curve; this is partly accounted for by the frequent opening of the door of the shed to admit visitors.

The interior temperatures rose to 207 deg. Fahr. in 30 minutes. The uppermost thermo-couple reached this point first, partly because of its position, the top of the safe being exposed to more intense heat than the lower parts. In this particular test it is interesting to note the way in which the temperature inside the safe settled down to a very slow rise during the second hour.

When the safe was opened it was found that the maximum thermometer registered 258 deg. Fahr. The highest reading recorded by the thermo-couples was 250 deg. Fahr., but considering that nearly 10 minutes elapsed between shutting off the gas and opening the safe at the conclusion of the test, this represents a fair agreement. The temperature attained inside the safe was, after a two-hour test of this severe character, well below the danger point 300 deg. Fahr.

The observations made by means of the optical pyrometer of the temperatures of the wall surfaces are interesting and valuable, and are consistent with readings of the fixed pyrometers, being as follows :—

Time in minutes		Temperature (deg. Fahr.) of Front	Right side	Back	Left Side
50	Gas	1700	—	1570	1670
	Wall	1486	1490	1446	1436
85	Gas	1830	—	1740	1900
	Wall	1634	1624	1642	1561
120	Gas	2130	—	1870	2060
	Wall	1868	1742	1779	1761

Certainly, on withdrawal from the furnace, the safe had every appearance of being at the temperatures given in the above tabulation.

In conclusion, it should be mentioned that as tests of the kind described in the present article are a new departure in this country, there will doubtless be consideration given to the methods of testing.

The Parthenon Restoration.

It is learned that work has now been completed on the re-erection of the columns on the north side of the Parthenon. Much satisfaction is expressed that this task, which was started in 1923, has been finished in time to provide Athens during her centenary celebrations with the spectacle of the Parthenon with all the columns set up again as they were before the German gunner brought them down by a bomb during the siege of Athens by Francesco Morosini in 1687.

Of the eight columns originally on the ground before Ludwig Ross began his operations in 1834 there were lacking eight drums, two capitals, and several triglyphs, which had completely disappeared, and were probably destroyed by the explosion of 1687. All the architraves, nevertheless, were extant, and for that reason all the columns of the north facade could be raised. All the missing drums were made of hard stone and béton concrete, to which the colour of the marble was given.—*The Morning Post.*

SCIENTIFIC CINEMA ILLUMINATION

The scientific illumination of the cinema and theatre stage, and the employment of colour lighting in the auditorium with an anticipation of its future application in the decoration of the cinema and its entertainment, were dealt with fully at a lecture given by Mr. R. Gillespie Williams, in the Holophane private theatre on April 30. This was part of a Contractors' Conference which Messrs. Holophane, Ltd., held for the benefit of their contractors.

It was important when dealing with coloured light, said Mr. Williams, to differentiate between the different results obtained by mixing two coloured lights as compared with two pigments of the same colours. For instance, if blue and yellow light were superimposed, white was obtained, but if blue and yellow pigments are mixed, we obtain green. Special attention was drawn to the need for precaution when superimposing coloured light on coloured objects, as without some knowledge and experience of the subject results other than those desired could easily be obtained. It was important to emphasise that for colour lighting to produce the desired results, installations must be planned by those who understood its science and were backed with considerable experience in the subject, as this science was only in its infancy, and hypothetical and inaccurate theories must be recognised as such and ignored. Coloured light had not been used to any extent in the past, but we were undoubtedly entering an era in which the science of colour and colour lighting was going to play an important part, and the cinema would take an important part in the use and development of this science. The entertainment provided in the cinema was really optional; that was, a light picture which was usually black and white or black. No such thing as a black-and-white picture ever occurred in nature, and photography, therefore, was really nothing like nature.

The value of colour lighting for musical interludes in the cinema and theatre was then demonstrated by means of a painted scene portraying camels and palm trees in a desert with pyramids and an Eastern city in the background. In conjunction with a suitable musical accompaniment the scene went through a gradual change from night to mid-day, and then through an Eastern sunset back to night. The dawn effects were particularly beautiful, and it was observed that when night was again shown the shadows of the camels and trees had gone.

The interior of the Holophane demonstration theatre is illuminated with special colour lighting equipment, and the walls have been specially decorated so that by the manipulation of dimmer controls the colour scheme of the interior may be changed a number of times. These changes were demonstrated and were of particular interest, as ordinary wallpapers are used on the walls, and these have not been touched or in any way altered. A special dimmer control, after the form of an aeroplane "joy-stick," was used to control the hall lighting, and was of interest, as only one handle needs to be manipulated, different positions of this handle giving any desired combination of coloured lighting. It was shown that an unskilled operator can quickly master the more intricate colour combinations with this special controller, and moreover, can quickly change from one combination to another.

Perhaps one of the most interesting demonstrations was when a special demonstration lighting-fitting was used to show the difference in colour hues between colour sprayed lamps and scientific reflector equipment with colour screens. It was seen that large numbers of striking colour hues produced by a combination of two or more colours from the reflector equipment were not visible when the same colour combinations were effected with sprayed lamps. The lecturer explained that while sprayed lamps offered a practical solution to many problems, they were not so suitable for colour work where the primary consideration is the procuring of a large number of colour hues from the combination of two or more main colours. The lecturer particularly emphasised the optical nature of colour, and urged for more consideration to be given to such factors as contrast, intensity, and hue.

It is safe to say that to many present the demonstration was in the nature of a revelation in the meaning of colour. The subject should be of the greatest value to architects engaged in cinema and theatre design.

WREN & VANBRUGH AT GREENWICH HOSPITAL

In the sixth volume of the excellent series being issued by the Wren Society, the work of Sir Christopher Wren, Sir John Vanbrugh, Nicholas Hawksmoor and John James, in building the great palatial Hospital for Seamen at Greenwich, is carefully considered. This thorough piece of research is issued under the editorship of Mr. Arthur Bolton and Mr. H. Duncan Hendrie. It is illustrated by about sixty plates, reproduced in the main from original drawings in Oxford, London and Greenwich, and several documents are given in the text. Well-printed and strongly bound, this is altogether an excellent book. It is shown that the part of Wren in the design and execution of the building was smaller than has been hitherto supposed, while that of Vanbrugh was correspondingly greater. Hawksmoor and James were Vanbrugh's assistants; the four men were all very closely associated. Of course, Wren's reputation does not suffer; indeed, it is remarked, "The amazing character of his genius becomes the more obvious as it is studied in detail. He was, indeed, as Hawksmoor wrote in 1728, an 'incomparable architect.'" "Throughout the attention of Wren and Vanbrugh was not restricted to architectural and building concerns, but both were actively concerned with the entire administrative work of the boards, of which they were members . It will be seen that while Vanbrugh may have written some plays, and occupied a social position as wit and dramatist, he did, nevertheless, spend days together revising the books of tradesmen's bills, and that he exercised the functions of an architect in the strictest sense."

Hawksmoor and James were also able technical persons. In 1719 Hawksmoor agreed "to perform the measurement and to make up the amount of the work at the Royal Hospital at Greenwich, faithfully and truly." There were giants on the earth in those days.

Plans of Inigo Jones's earlier building, the Queen's House, and John Webb's plan for the palace of Charles II are also given. I mention the latter because the general arrangement was so much like the "lay-out" of the Foundling Hospital, that we may suppose that the latter unhappy building was influenced by Webb's plan or some prototype common to both.

The plates display remarkable schemes and grandeurs. One example of extravagance is Vanbrugh's first design for the completion of the hospital. This has a great elliptical forecourt to a chapel, and is an echo of St. Peter's at Rome. The scheme is further explained in a perspective by Mr. Raffles Davison, an admirable drawing, "large" and quiet, which goes far beyond ordinary architectural draughtsmanship.

Another especially remarkable thing is Vanbrugh's "Elevation to King William's Court." In this drawing windows of various shapes are spotted about, so as to produce a screen-like effect. If architecture is scene-painting in stone, as some try to believe, this is a good example. I fear we may see imitations of these things winning competitions.

W. R. Lethaby.

SOCIETIES AND INSTITUTIONS

R.I.B.A.

THE following are notes from the minutes of the Council, April 7 :—

British Architects' Conference, 1931.—It was decided, on the recommendation of the Allied Societies' Conference, to accept the invitation of the Royal Institute of the Architects of Ireland to hold the British Architects' Conference at Dublin in 1931.

School of Architecture, Nottingham.—It was decided, on the recommendation of the Board of Architectural Education, to recognise the School of Architecture, Nottingham, for exemption from the R.I.B.A. Intermediate Examination for its three-years' full-time day course.

The Grissell Gold Medal.—It was decided, on the recommendation of the Board of Architectural Education, to abolish the minimum age limit of 21 and to make the competition open to those who have not been in practice for a longer period than ten years and who have passed the R.I.B.A. Final or equivalent Examination or have produced certificates from responsible architects to the effect that they have reached the required standard. This revision will not take effect until next year.

The Officers of the Board of Architectural Education.—The officers of the Board of Architectural Education were appointed as follows for the session 1930-1931 :—Mr. L. Sylvester Sullivan, chairman; Mr. W. H. Ansell (Chairman of the Examinations Committee), Professor A. E. Richardson (Chairman of the Schools Committee), and Professor A. C. Dickie (Chairman of the Prizes and Scholarships Committee), vice-chairmen; Mr. A. H. Moberly, hon. secretary.

The Restoration of St. Paul's Cathedral.—It was decided to hold, on a suitable date in June, a special council dinner at which all the architects who have been concerned with the restoration of St. Paul's Cathedral should be invited as guests of honour, and to have a special general meeting on the same day at which a lecture, illustrated by lantern slides, on the work of restoration should be given.

Higher Buildings in London.—The following members were appointed to represent the R.I.B.A. at a conference which is being convened by the London Society to consider the growing tendency to relax the conditions governing the height of buildings in London : Professor S. D. Adshead, Mr. Charles Holden, Mr. Arthur Keen, and Mr. W. Harding Thompson.

It was decided to ask the representatives to support the previous policy of the Council in this matter, viz., that the Council are not in favour of any general relaxation of the present conditions as laid down in the London Building Act.

Election of Students.—The following probationers were elected as students of the R.I.B.A. :—R. A. Collie (Glasgow), Miss K. E. Cornelius (A.A.), H. G. Dunn (Edinburgh), J. Foley (Northern Poly.), Miss A. E. Hall (University of London), E. R. Heathcote (Cambridge University), P. B. Herbert (Birmingham), C. A. Knight (University of London), A. Miller (Glasgow), R. E. Roberts (Liverpool), D. D. Robinson (A.A.).

THE SURVEYORS' INSTITUTION.

FOLLOWING are the results of the Professional Examinations, 1930, of the Surveyors' Institution. These candidates have satisfied the examiners :—

Final Examination.

H. G. Abbott, Hinckley.
J. S. K. Abson, Bishopsgate, E.C.2.
E. W. Adams, Hull.
T. R. F. Addie, Shrewsbury.
P. C. Agar, Slough, Bucks.
G. E. H. Allen, Liverpool.
P. Andrews, Willesden.
C. E. Arden, Cavendish Place, W.1.
J. O. Armes, Darlington.
E. L. Ashcroft, Carshalton.
J. G. Aspinall, Small Heath.
A. R. Atkinson, East Sheen.
B. Ayear, Boscombe, Bournemouth.
W. T. Bagnall, Worthing.
H. W. Bailey, Chalfont St. Giles.
L. G. F. Bailey, E. Twickenham.
P. W. Barber, Colchester.
A. H. Barrell, Eastbourne, Sussex.
R. Barrows, Mansfield, Notts.
H. G. Bartlett, Teddington, Middlesex.
E. W. Bartley, Hamilton Terrace, N.W.8.
A. H. Bately, Colchester.
A. Th. Baylis, Kings Norton.
W. J. G. Beach, Mostyn, Flints.
W. H. Beesley, Grove Park, W.4.
C. J. Belfield, Queen's Gate, S.W.7.
J. J. Bell, Carlisle.
J. F. Bellini, Wynford Rd., N.1.
A. G. B. Bennett, Manchester.
M. (Miss) Besly, Vauxhall Bridge-road, S.W.1.
B. E. N. Binge, Bourne End, Bucks.
C. W. Boddie, Woodford Green.
C. C. Bolam, Berwick-on-Tweed.
R. S. Bond, Worcester Park, Surrey.
C. B. Booth, Henley-on-Thames.
F. L. Bristow, Beckenham, Kent.
C. A. Broadway, S. Norwood.
F. A. Brown, E. Twickenham.
H. C. Burr, E. Ham.
F. A. Cadman, Ilford.
T. E. Carrick, Beverley, E. Yorks.
J. W. S. Castleton, Hendon, N.W.4.
G. S. Challacombe, Bristol.
H. Chew, Marlow.
F. R. Clark, Andover.
W. T. Clegg, Ilkeley, Yorks.
J. C. Cole, Ash Vale, Surrey.
H. Coley, Liverpool.
N. H. Cooper, Plaistow, E.13.
J. M. Coulson, Darlington.
A. G. Crawford, Birkenhead.
W. R. Crosher, N.W.11.
E. L. Cross, Shrewsbury.
R. C. Crossley, Truro.
G. T. Cummins, Llandudno.
E. O. Danger, Edgware, Middlesex.
A. Davies, Newport, Mon.
O. A. Davis, Clapham Common.
R. G. Davis, Birmingham.
E. C. Day, Doncaster.
H. G. Day, Sutton, Surrey.
G. G. Dingle, Barnes.
C. B. Dives, Isleworth.
H. D. Dixon, Birmingham.
L. Easton, Stone, Staffs.
W. R. Eaton, Lower Edmonton.
H. J. Ebbutt, Cheam.
R. A. Eeles, Muswell Hill, N.10.
A. W. Ellis, Parrington.
H. W. Ellis, Derby.
P. T. Escott, Brixton Hill.
A. C. B. Evans, Streatham.
F. J. Evans, Bridgend, Glam.
T. C. Evered, Queen's Gate, S.W.7.
R. J. Felts, Kempston.
E. F. Fidgen, Westcliff-on-Sea.
W. P. Fletcher, Wormley, Herts.
H. Ford, Walsall.
L. W. H. Francis, Bloomsbury.
H. B. Freeman, Nailsea, Som.
A. T. French, W.C.1.
M. Fuller, Dartford.
J. R. Furbur, Birkenhead.
L. D. Gardener, Finchley.
D. A. Gifford, Birmingham.
E. T. Golby, Edgware.
G. H. Goodman, Birmingham.
J. D. Granville, Brighton.
A. Gray, Clapham Park.
D. G. Gray, Sydenham.
D. W. Greaves, Rawtenstall.
J. C. Grindley, Brighton.
H. C. Hampton, Enfield.
A. R. Hanson, Swansea.
H. J. A. Harbour, S.W.6.
D. F. Harding, St. Albans.
R. P. L. Harding, St. Albans.
C. T. Harris, Carshalton.
F. L. Harrison, Southall.
L. O. Hart, Mitcham.
T. D. Harvey, Cheltenham.
C. Haswell, Liverpool.
J. Hayhurst, Preston.
P. L. Haynes, Hawkhurst.
G. Hebson, Stamford Hill.
T. A. Henderson, Crouch End. (Mellersh Prize.)
R. R. Henshaw, Bath.
W. B. Hepburn, Romford.
K. G. Higgins, Kensington.
W. Hiles, York.
J. R. Hill, Tideswell.
L. C. Hill, Biggleswade.
R. A. D. Hill, W. Ealing.
W. E. A. Hindmarsh, Newcastle-upon-Tyne.
R. R. Hole, Haverfordwest.
L. R. Hopkins, Swansea.
A. Hough, Rhos.
T. Houghton, New Longton.
F. F. Hubbard, Ipswich.
M. L. Hunt, Enfield.
R. W. Icke, Shrewsbury.
P. Irvine, Torquay.
C. G. Jefferies, Reading.
C. J. Jenkins, Newport, Mon.
W. H. Jenkins, St. John's Wood.
T. E. Job, Kensington.
J. J. Johnson, N.W.2.
R. R. C. Johnson, Great Missenden.
J. R. Johnston, Kenton.
D. S. Jones, Dartford.
H. Jones, Nuneaton, Warwickshire.
W. C. Jowett, Derby.
J. C. Keele, Sutton.
P. F. Keeling, Sutton Coldfield.
S. Kent, Wimborne.
J. A. Kershaw, Bayswater.
H. S. King, Chipstead.
E. J. Kinsman, Belmont, Surrey.
F. J. D. Kirkby, S.W.11.
H. D. Kirkus, Hull.
E. G. Lane, Hounslow, Middlesex.
R. F. Linnett, Hatch End.
F. H. D. Linsley, Marlborough.
L. B. Longley, Epsom.
J. L. Lovegrove, Eltham.
A. Lowson, Dulwich.
A. E. Lundie, Devonport.
J. W. Mace, Acocks Green.
A. T. McLeod, Tunbridge Wells.
P. E. Marketis, Hove.
L. Marsden, Westminster.
J. P. Martin, Seaford.
D. J. Matthews, Brighton.
C. F. B. May, Maldon.
L. Miller, Bournemouth.
L. W. Miller, Stroud.
R. R. Miller, Camberwell.
C. Mitchell, Plumstead.
K. H. Moon, Bath.
J. L. Morgan, Lavender Hill.
J. S. Morgan, Bristol.
W. O. Morgan, Tredegar, Mon.
B. Moules, Stevenage.
E. J. T. Neal, N.W.11.
C. A. Neale, Finchley.
H. L. Nicholson, Shrewsbury.
F. G. Norton-Fagge, Ipswich.
W. S. Nunn, N. W.10.
N. A. Oldham, Barking.
A. D. Owen, Lavender Hill.
K. E. Parker, Bray-on-Thames.
C. P. Parkin, Kilburn.
C. M. Parr, Sunderland.
F. W. Parry-Marshall, Yardley.
G. R. Paver, Southsea, Hants.
F. W. Payne, Leicester.
H. E. Peake, Wood Green.
E. G. Peiser, Esher.
L. H. E. Perks, Bedford.
H. J. W. Phillips, Tredegar, Mon.
A. Pickersgill, Leeds.
A. S. Pike, Essex.
D. J. Pirie, Southgate.
S. Plaster, Cricklewood.
M. J. (Miss) Playle, Ecclesshall.
G. Poole, Hampstead.
M. H. Powell, Birmingham.
R. A. Powell, Enfield.
I. V. Price, Oxford.
R. J. Puddicombe, Beaford.
F. J. Pugh, Mill Hill.
J. M. Pullen, Stroud Green.
W. H. Rapley, Bexhill-on-Sea.
C. W. E. Remnant, Norbury.
M. F. Rice, Brondesbury.
R. L. Richards, Winchmore Hill. (Penfold Gold Medal.) (Galsworthy Prize.)
J. N. V. Richards, Brecon.
H. Ridehalgh, Isle of Man.
F. Riding, Leeds.
P. C. Ridout, Bromley, Kent.
I. F. Roberts, W.C.2.
T. L. Roberts, Anglesey.
E. G. Robinson, Paignton.
C. A. Rogers, Aylesbury.
R. N. Rogers, Newton Abbot.
H. A. Rolls, Leighton Buzzard.
G. Rowbottom, Ashby-de-la-Zouch.
R. H. Scott, Crouch End.
B. M. Scudamore, Cambridge.
J. K. Shallcross, Salisbury.
J. Shapley, Alderley Edge.
R. E. Shaw, Sutton.
H. W. Shephard, W.14.
S. E. Shepherd, Broomhall.
W. K. Shepherd, Knowle.
C. E. Side, Welwyn G.C.
R. W. Silk, Winchmore Hill.
N. Simmonds, Reading.
E. J. Smith, Bedford.
G. J. S. Smith, Eastbourne.
O. H. Smith, Manchester. (Wainwright Prize.)
E. A. Speirs, Clapham.
C. W. Stephenson, Beverley.
H. H. Steventon, Halesowen.
K. B. Swaine, Richmond (Surrey).
F. H. Sweeting, Watford.
G. Sydall, Bury.
S. W. J. Tanner, Winchester.
W. G. Tarrant, S.W.11.
L. Tattersall, Burnley.
F. H. Taylor, Eccleshill.
J. E. Taylor, Great Yarmouth.
W. J. Thomas, Christchurch.
C. E. Thompson, Liverpool.
W. Thornhill, Sandbach.
C. H. Thurston, Norwich.
P. H. Toy, Grove Park.
W. E. Tozer, Totnes.
N. H. Trace, N.W.11.
A. E. Triggs, E.C.3.
W. F. Tucker, Rustington.
H. J. B. Tufton, Stamford Hill.
F. S. Turner, Holtham.
G. R. Tween, Bushey.
E. W. H. Vallis, Trowbridge.
H. N. Venner, Margate. (Crawter Prize.)
A. H. Vickers, Rawmarsh.
W. H. Wade, Bromley.
W. J. Wadey, Herne Hill.
H. L. Walker, Southall.
J. C. Walter, Harringay.
D. R. Waters, Singapore.
D. K. Waters, Leigh-on-Sea.
A. J. Watson, Hawkhurst.
R. J. Watson, Horton Kirby.
H. A. Wells, Catford.
D. J. Westmore, E.14.
G. F. K. White, Upper Tooting.
W. F. Whitehead, Wolverhampton.
A. G. B. Whittaker, Bristol.
C. H. Wilkinson, Ipswich.
O. P. D. Williams, Leigh-on-Sea.
H. (Jr.) Wilson, Halifax.
C. H. Wolfe, Edmonton.
J. Wolton, Southall.
M. E. Wood, Aldeburgh.
S. J. Woodeson, Tilehurst.
E. O. Woodland, Dover.
C. W. Woolf, Beckenham.
P. W. Woolley, Retford.
N. Worrall, Cheadle.
J. D. Young, Dovercourt Bay.
J. M. Young, Coulsdon.

IRISH CANDIDATE.

H. J. Byrne, Sandycove, Co. Dublin.

Direct Fellowship Examination.

J. H. R. Freeborn, Rickmansworth.
J. G. Hetherington, Gerrards Cross.
A. J. Howard, Welwyn G.C.
S. J. Lane, Southampton.
G. P. Price, Kings Norton.
H. Trinick, E.C.4.
R. A. Watson, Bakewell.
J. W. Wilton, Guildford.

Special Single Examination for Degree Holders.

A. N. Bicknell, Bangor, N. Wales.
F. M. Bomer, Gerrards Cross.
A. D. Goddard, Ealing.
A. R. Goldthorp, Mitcham.
D. (Miss) Haworth, Warrington.
D. E. (Miss) Miskin, Bournemouth.
J. Pridding, Nottingham.
E. C. Roberts, St. Helens.
R. J. Rosbotham, Ormskirk.
R. R. Sinha, Calcutta.
M. A. J. Valentine, W.C.1.
O. K. Whatley, Cowden, Kent.

Intermediate Examination.

STUDENTS.

L. W. A. Adams, Leytonstone.
D. J. Adamson, Tunbridge Wells.
L. Adleman, Clapton.
M. D. Alexander, Stamford Hill.
M. L. Arnold, Dorking.
C. W. Arch, Maida Vale.
C. A. Bacon, Balham.
F. W. Baker, Stockton-on-Tees.
J. L. Baker, Woodford Green.
F. H. Bate, Warwick.
S. H. Bateman, W. Drayton.
J. T. Boardman, Haverhill.
G. L. Boedeker, Croydon.
G. B. Boering, Chingford.
H. G. Boreham, Palmers Green.
J. C. Bourne, Esher.
K. G. Bradford, Dover.
J. E. Bradshaw, Hyde Park, W.2.
R. M. Brighouse, Worcester.
L. J. R. Butler, Portishead.
G. R. M. Canning, Holborn, W.C.1.
A. Clapham, Woodside Park.
A. N. Clarke, Hampstead.
C. M. C. (Miss) Clay, Boreham Wood.
N. D. Clough, Manor Park.
B. A. Cocker, Ealing.
J. F. W. Collins, Dover.
T. Connor, Merton.
A. Cooper, Chester.
A. Crabtree, Rochdale.
H. W. Crellin, Lytham St. Annes.
L. T. Croysdill, Brighton.
S. V. Cullen, Northwood.
J. H. Cuthbert, Alexandra Park.
A. G. Cutler, Hounslow.
G. Dale, Bournemouth.
G. H. Dean, Wandsworth.
G. A. Densham, Dollis Hill.
J. E. Dickins, E. Croydon.
E. S. Dobb, Old Colwyn.
A. C. Draycott, Ferring.
H. W. Edwards, Letchworth.
W. E. Ellis, Goodmayes.
T. L. Emett, Preston.
E. K. Farrow, Nottingham.
E. R. V. Felstead, Battersea.
A. H. Fisher, High Wycombe.
H. S. Ford, Wolverhampton.
G. E. Gibson, Crewe.
H. N. Ginns, Greenwich.
J. Gold, West Croydon.
G. H. Good, Baldwin, Oxon.
G. N. Gossling, Stoke-on-Trent.
E. B. Griffin, St. Austell.
R. J. Gurney, Ledbury.
A. Halhead, Kendal.
E. R. Hannaford, Hendon.
L. W. Harcourt, Hampton.
G. N. Hardiman, Southampton.
L. C. Harris, Bedford.
R. G. Harris, Canterbury.
E. A. Hawkins, Bury St. Edmunds.
J. E. Hemens, Cheltenham.
K. J. Henson, Harrow.
C. F. Henton, Barry.
C. Higgott, Sefton Park.
W. A. Hill, Hitchin.
A. B. Hindsmarsh, Whitley Bay.
G. Holden, Stretford.
B. W. Howe, Bethill.
W. A. Howkins, Rugby. (Special Prize.)
S. H. V. Hughes, Plymouth.
L. T. Hunt, Streatham.

T. W. Hustler, Market Harborough.
H. C. Hutson, Wimbledon.
F. C. Jackson, Hadleigh
G. H. Jacques, Sevenoaks.
R. H. James, E. Grinstead.
E. W. Jennings, Stratford.
F. Jepson, Preston.
R. W. Jolly, Norwich.
W. N. Jones, Waterloo.
H. H. Karslake, Acton.
J. J. Kelland, Chorley.
K. G. Kemp, Beckenham.
F. W. Kenchington, Leamington Spa.
B. M. Kenington, Harlesden.
R. J. Kingham, Aldershot.
L. W. Lane, Luton.
J. C. Lang, Clapham.
F. C. Larmour, Newcastle-on-Tyne.
R. J. Last, Cleckheaton.
F. Leater, Middleton.
F. Leece, Frodsham.
D. M. Leech, Newport, Mon
R. T. Lenton, Clapham.
E. C. Leveridge, Harlesden.
K. G. Lewis, Streatham.
F. L. Living, Stratford.
J. L. Milburn Cardiff.
T. W. Morley, Kensal Rise.
H. Moss, Walton.
R. G. Murray, Nottingham.
F. W. Naden, Buxton.
K. Nealon, Thornton Heath.
P. R. Neame, Northfleet.
T. G. Nicholson, Parsons Green.
R. C. Nisbet, Weybridge.
K. C. Oakley, Stroud Green.
M. A. (Miss) Page, Harlesden.
G. L. Panes, Edenbridge.
R. G. Parris, Croydon.
R. F. Patching, Worthing.
D. J. Peachey, Wandsworth.
C. A. Platts, Bournemouth.
W. J. J. Portlock, Hereford.
J. B. Preston, Lancaster.
L. Price, Kendal.
W. E. C. Priest, Wokingham.
W. B. Punchard, Kennington.
W. N. Read, Ealing.
R. D. Relf, W.C.1.
V. H. Rendell, Devizes. (Institution Prize.)
G. P. Richards, Ammanford.
A. F. Rihll, Honiton.
W. Rollinson, Glossop.
J. W. Rowland, Belvedere, Kent.
C. F. Rushforth, Doncaster.
R. M. Sandford, Palmers Green.
J. L. Scarlett, Lancaster Gate.
N. P. Scott, Portsmouth.
C. W. Sheppard, Hove.
E. H. F. Smith, Penrith.
J. C. Spooner, Woodford Green.
C. A. J. Sprague, Hurlingham.
T. F. Stevenson, Leicester.
J. W. Symonds, Herne Hill.
R. S. Tayler, Uxbridge.
H. H. Temple, Manor Park.
C. G. Terry, Henley-on-Thames.
C. R. Theobald, Doncaster.
C. W. Tibbs, Chingford.
R. S. Tizzard, Herne Hill.
G. W. Towse, Bromley, Kent.
J. N. Tucker, Cheam, Surrey.
W. Turnbull, S.W.12
H. A. Tuttle, Kensington.
A. J. Vernon, N.W.1.
G. M. Vine, Golders Green.
C. E. Wadley, Wallington.
R. C. Wakelin, Willesden.
E. H. Walden, Bexleyheath.
A. J. S. Walker, Thornton Heath.
R. C. Walmsley, Manchester.
F. C. Ward, Biggleswade, Beds.
W. A. J. Warren, Thornton Heath.
W. R. G. Watkin, Horley.
P. H. Watts, Palmers Green.
J. H. B. Welford, Cambridge.
A. E. E. Westoby, Winchmore Hill.
C. T. Whalley, Wimbledon.
A. T. Whitfield, Worcester.
W. K. Whittaker, Lytham St. Annes.
J. Wicks, Guildford.
A. S. Wilson, Cricklewood.
C. Wise, Manchester.
R. E. Wood, Tankerton.
R. J. Wortley, Sheringham.
D. C. K. Wright, Henley-on-Thames.
J. L. Wyles, E.C.2.
J. A. Yates, Alton.

IRISH CANDIDATE.

J. Lyons, Bray, Co. Wicklow.

Non-Students.

E. T. Abbotts, W.C.1.
H. G. L. (Miss) Alford, Chelsea.
E. S. Allen, N.W.2.
J. H. Arbuthnot, W.8.
R. C. Arnold, Cambridge.
G. S. Baker, Wolverhampton.
R. S. Bennett, Slough.
W. J. Bennett, Hampstead.
P. Black, Aylesbury.
W. F. Bollard, Burnley.
E. J. Booth, Southport, Lancs.
I. C. Boyd, Doddington, Oxon.
S. A. Brett, Norwood.
J. E. (Miss) Bunford, Beaconsfield.
S. R. Butcher, N. Harrow.
J. W. Clarke, Bournemouth.
R. A. Cook, Watford, Herts.
E. H. Cox, Shanklin.
H. B. Cox, N.W.1.
T. W. Crookdake, Liverpool.
W. A. Curley, Newburn-on-Tyne.
J. E. Dowsett, Brixton.
H. S. Dyer, Westcliff-on-Sea. (Bendel Prize.)
J. A. Edwards, Caernarvon.
J. H. Edwards, Worksop.
C. Ellis, Halifax.
G. H. Friend, Merton Park.
A. Gabbott, Gorton.
J. Gibson, Edinburgh.
F. N. Glanfield, Exeter.
C. W. Groves, Thornton Heath.
T. H. Hall, Wakefield.
J. M. Harrison, Beaconsfield.
E. D. Haydon, Southampton.
C. A. H. Hayward, Cirencester.
J. S. B. Heath Tadworth.
W. C. Herrick, Loughborough.
F. R. Hoe, Dulwich.
J. H. Holmes, Enfield.
H. Homeshaw, Scarborough.
D. S. House, Bournemouth.
H. F. Hudd, Chippenham.
H. L. Humphreys, Carmarthen.
W. D. Illingworth, Shipley.
E. A. G. Jacobs, Cosham.
H. N. Jacobs, Great Missenden.
T. James, Swansea.
J. Johnson, Widnes.
A. W. Jones, Bath.
A. E. Kennett, Richmond, Surrey.
S. Key, Chelmsford.
L. F. Kimber, Southampton. (Penfold Silver Medal.) (Driver Prize.) (Building Prize.)
W. King, Watford.
G. Kirkbride, Carlisle.
E. W. Leaning, Bedford Park.
T. C. March, Halifax.
R. S. J. Mathews, Edgbaston.
P. Myerscough, Preston.
L. C. V. New, Streatham.
H. Ogden, Stoke-on-Trent.
S. Ormerod, Elton, Bury.
R. Pares, Selsey.
T. E. Peel, Bradford.
H. H. Pool, Fleet, Hants.
A. Pye, Sheffield.
W. Randell, Jun., Gateshead.
W. Riley, Wigan.
T. Rishworth, Keighley.
A. S. Roberts, Alexandra Park.
A. M. (Miss) Seagrove, N.12.
J. Short, Liverpool.
A. C. Singleton, Teddington.
C. H. Smith, Ipswich.
P. W. Smith, Shipley.
S. R. J. Smith, Fulham.
W. E. Snow, Leicester.
R. E. Spreadbury, Kilburn.
J. W. S. Stephens, S.E.1.
L. B. Stevens, Bedford.
R. L. Stirling, Halifax.
J. R. Stuart, Buxton.
D. E. Tanton, Essex.
H. L. Tate, Leigh, Lancs.
R. V. Tutte, Herne Hill.
W. G. Vellenoweth, Peckham.
T. F. Walrond, Bath.
W. G. Webb, N.1.
L. Westwood, Harrogate.
L. G. White, Rainham.
G. G. Williams, Plymouth.
R. B. Williamson, Maidenhead.

IRISH CANDIDATES,

W. J. Elliott, Richhill, Co. Armagh.
W. R. Ferris, Belfast.

The following Scottish Candidates have satisfied the examiners :—

Intermediate (Students).

C. B. Bain, Pollokshields.
R. G. Barclay, Glasgow.
A. P. Craig, Glasgow.
C. F. S. Fraser, Edinburgh.
W. B. French, Glasgow.
J. K. Munro, Tain, Ross.
G. C. Russell, Glasgow.
W. D. Russell, Glasgow.
W. C. Watson, Giffnock, Renfrew.

Intermediate (Non-Students).

D. C. Anderson, Kirkcudbright.
J. McK. Barr, Argyllshire.
A. P. Borrie, Kelso.
J. Daly, Hamilton.
J. Gibson, Burnside. (Quantities Prize.)
J. W. Gray, Glasgow.
J. A. Gray, Glasgow. (Scottish Prize.)
F. McColm, Drumoyne.
J. MacIntyre, Portree, Isle of Skye.
I. MacKay, Glasgow.
J. H. Ogg, Renfrewshire.
D. Proctor, Glasgow.
J. Stevenson, Sierra Leone.
D. MacL. Stewart, Maryhill, Glasgow.
A. Urquhart, Glasgow.

Final.

J. A. Cruickshank, Edinburgh.
J. A. Grant, Kinnaull, Perth.
D. McDonald, Cathcart, Glasgow.
T. B. Macdonald, Renfrewshire.
N. C. Mackay, Glasgow.
D. McKerchar, Stirling.
T. MacLean, Glasgow.
A. Macpherson, Glasgow.
D. McL. A. Miller, Glasgow.
A. Niven, Hamilton.
R. D. Pringle, Edinburgh

Direct Fellowship.

N. A. Millar, Glasgow.

HANTS ARCHITECTS.

THE annual meeting of the Hampshire and Isle of Wight Architectural Association was held at the Awdry Rooms, Winchester, on May 10, when the chair was taken by Mr. J. Arthur Smith, F.R.I.B.A., President. There was an excellent attendance of members to welcome Mr. G. C. Lawrence, P.W.A., F.R.I.B.A., Chairman of the Allied Societies' Conference, who attended to address the Association.

Mr. A. L. Roberts read the 18th annual report of the Council, which showed that there had been a net increase of membership of 53.—The report was adopted on the motion of the Secretary, seconded by Mr. W. H. Dover.

Mr. G. C. Lawrence, P.W.A., F.R.I.B.A., Chairman of the Allied Societies' Conference, addressed the members on the subject of registration and other professional matters, and subsequently addressed the gathering on the history of the R.I.B.A. and the Allied Societies. The last good thing that William IV did, practically his last act, in 1837, was to grant a Charter to a gentleman whom he described as his loving cousin, Sir Thomas Philip Earl de Grey, to form an association for the purpose of the general advancement of civic architecture, and the first thing his successor Queen Victoria, did, was to confirm that grant, and the first Society of Architects that was ever formed in these Isles was founded in 1837. Two years later, in 1839, the Royal Institute of Architects was instituted in Dublin, and within nine years, in 1848, a Society of Architects was started in Liverpool, while in 1850 a Society was started in Bristol. In the middle of the 19th Century there were only four Societies of Architects in the British Isles, and of these only two were worthy of the dignity of Royal Societies. The R.I.B.A. in London set itself to work at once to form a policy for the improvement of architecture, and being unable to teach architecture except to members who were practising architects, it started a system of examinations. It went on its useful way till 1887, when it appealed for an amended Charter, and in 1889 it took into alliance nine other societies out of 14 which existed, and that was the beginning of the alliance which he represented that day. He wanted them to note that it took in only nine of the 14 societies, which had an ill-effect on the progress of the Royal Institute, because it limited the number of representatives of allied societies on the Council of the R.I.B.A. to nine. Despite the increase in the number of societies in subsequent years, this state of things took a great deal of altering. London was London and the provinces were only the provinces; but when Sir John Simpson, the first President of the alliance, in 1921, inaugurated a policy of trying to get all architects to become united, and to adopt a common mode, a common standard of education, and a common standard of ethics, a great reaction set in in London, and the result was that when Sir John Simpson's presidency ended and Mr. Paul Waterhouse became President, the old council was destroyed and there was a desire in London to go back to "ourselves alone." The allied societies had not then seen the franchise, and so in 1922 all the presidents of allied societies were asked to attend a conference. Out of about 40 societies, three only attended the conference, and he (the speaker) was one of the three who attended that first alliance conference. It was immediately following that conference that the reactionaries took possession of the R.I.B.A., and that was a tremendous stimulus to the allied societies. In two years the allied societies' conference became fully representative, and in 1926 a reform was passed which gave full representation to all societies in the alliance on the Council of the R.I.B.A. They were therefore able to help to sway the policy, and the policy of the R.I.B.A. which now obtained was not the policy of London, or of Hampshire, or Bristol, or Liverpool, but the policy of the architects of the British Empire, and he wanted to impress upon them that the alliance of architects which he represented was unique in professional organisations of the world. He understood that in this province there was no scheme of architecture, and he reminded them that if they wished to start, all the knowledge and experience of all the allied organisations and of the R.I.B.A. was at their service.

LIVERPOOL ARCHITECTURAL SOCIETY.

Professor Patrick Abercrombie, who is away in the East, was elected president of the Liverpool Architectural Society at their annual meeting, in succession to Mr. Duncan Campbell, who has held office for two years. Mr. Ernest Gee and Mr. Leonard Barnish were elected vice-presidents.

WEST COUNTRY SURVEYORS.

The annual meeting and luncheon of the Gloucester, Somerset and North Wilts branch of the Surveyors' Institution was held at the Berkeley Café, Bristol, the guests including the Lord Mayor and Sheriff of the city. The newly-elected President, Mr F. Peter, occupied the chair.

Proposing the toast of the Institution and the local branch, the Lord Mayor said surveyors were men with great responsibilities. He thought that they belonged to a fascinating profession, and speaking from his own personal experience he had come to the opinion that a surveyor was a man who was always impartial, most careful and thorough in his work, and always to be trusted. The President, responding, said a young man who intended to be a surveyor should be placed in an office where he not only got the right practical experience, but also the right atmosphere and frame of mind, for only under such conditions did he get a true conception of the great traditions of the profession which had been built up by members of the Institution. The profession was passing through a very difficult period. The men coming into the profession to-day had not had the opportunities of the older members. Freehold property thirty years ago was taken as the possession of power, an indication of family standing, but now it had been reduced to almost goods and chattels, a sort of thing to buy and sell with indifference, and almost the subject for gambling. That kind of thing was not good for this country.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

Nuisance Under Public Health Act.

SIR,—Must a complaint of a nuisance under the Public Health (Metropolis) Act, 1891, be in writing, or a document signed, stating exactly the nature and extent of the complaint; if so, is the letter or document open to public inspection?

CONRAD 500.

Concrete Joists.

SIR,—We would appreciate advice on the following. It is proposed to erect cottages on a site, part of which is "made" ground.

Piers have been built from solid ground, 2 ft. 5 in. square, in cement mortar, and are at 18 ft. centres. The walls are 11 in cavity, height to eaves 18 ft. The roof is of tiles, and approximately three-fourths of cross walls are on made ground also.

It is proposed to carry these walls on R.S.J.s cased in concrete.

What size of joists will be required, and is concrete necessary to strengthen?

Alternatively, will you please advise size of ferro-concrete?

Would brick arches be suitable as further alternative?

T. H.

[In publishing this inquiry we must point out that correspondents who need advice of this kind should seek professional aid.—ED.]

Bleaching Oak.

[REPLY TO "ARCHITECTS," APRIL 25.]

SIR,—I have read the various contributions on this subject with great interest, and, so far, have not seen any reference to a slight variation to the usual methods adopted in the treatment of oak. Many years ago, while on one of my frequent sketching and photographing tours in East Anglia I arrived at Cawston Church while the magnificent oak double hammer-beam roof was being restored. While on the scaffold taking photographs I was much struck by the beautiful appearance of the new oak and how finely it harmonised with the old woodwork. I immediately sought out the clerk of works and found him a keen and enthusiastic fellow. I asked him to tell me how he had arrived at the delicate silver grey tone of the new oak. He smiled and told me that it was the result of a secret process. "Very good," I replied, "but it is a secret which should be shared by the whole building fraternity." I cannot now remember the proportions, but he informed me that the result was largely due to the addition of yellow ochre to the lime. As he seemed an honest fellow, I have no doubt he was stating what he believed to be correct.

W. D.

Disposal of Drainage.

[REPLY TO "MIDLANDER," MAY 16.]

SIR,—"Midlander" does not appear to intend to "treat" the drainage, or to adopt any means of purification before turning the drainage into the stream. The fact that the village drainage is already carried to the stream, rendering it foul, does not permit of "Midlander" adopting the same course. For it is an offence under the Rivers Pollution Prevention Act, 1876, to pollute the water of any stream by foul drainage. And it is the duty of the local authority to enforce the provisions of the Act. As to drainage generally, see Mr. Creswell's article "Some Notes on Drainage," on page 925 of our issue of May 9. It is the local authority that is empowered to make sewers through, across, or under any private street or land on complying with certain requirements of the Public Health Act, 1875. Where there is no sewer within one hundred feet, the local authority can enforce drainage into a covered cesspool or other place not being under any house, and this is what is usually done in such circumstances.

It would appear that "Midlander" might consider the advantage of "treating" his own drainage and arrange with the local authority for turning the treated effluent into the stream referred to.

LEX.

SIR,—A properly designed septic tank system with filter can produce a practically pure effluent to which no exception could be taken. Owners of property who allow crude sewage to discharge into a watercourse assume grave responsibilities towards other riparian owners, and it is rarely that a stream does not ultimately reach the waters of some conservancy authority. The state of affairs described seems a serious one, and should be brought to the notice of the local authority concerned.

SANITARY.

Maintenance.

[REPLIES TO "DOUBTFUL," MAY 16.]

SIR,—With the usual maintenance clause in force, (*a*) once the maintenance period has expired, it is difficult to hold the contractor liable for any defect whatever. Especially is this so if the architect's final certificate of satisfactory completion has been obtained by the contractor. But there are extreme cases when it has been proved that latent defects have existed before though not discovered until after the maintenance period has expired; and, in such instances, as also where the work is so defective as to be of no use to the employer, then the employer may sue the contractor for the cost of the defects, or for such a sum as will bring the work into conformity with the conditions of the contract.

As to (*b*), much depends on the contract of sale. Generally, both as to patent and latent defects, the rule is *caveat emptor* (let the buyer beware), and the vendor's liability ends on completion of the purchase. But there have been instances recently where the purchaser has succeeded in recovering damages for latent defects, but such demand must be made within a reasonable time after the completion of purchase.

SCRIP.

SIR,—The expiration of the maintenance period of an ordinary building contract does not exonerate the builder from all future liability for the results of his building. Any defective work which appears after, for lack of suitable test during that period, and provided it is not of a trivial nature, has to be set right by the person responsible. It is even doubtful whether the Statute of Limitations would apply to some such cases. In the case of a house built to sell, it depends very largely upon what is deemed "a defect." For instance, if the house is frankly of a cheap type, the shrinkage of joinery and minor cracking of plaster would need to be judged from a low standard. But the seller of a house must provide a house which is habitable, so that the serious penetration of weather from fundamental defects in building would not be excusable on the score of the cheap character of the building.

NOT A LAWYER.

P.C. Sums.

[REPLY TO "SQUARE DEAL," MAY 16.]

SIR,—I wonder if the p.c. sums referred to did really specifically state that a part of them covered fittings. Unless that is the case, I do not think your correspondent has a real grievance, as fittings are of the nature of furnishings, or tenants' fixtures, upon which a builder can hardly claim a fair profit. In what way does he mean that "he had to accept all responsibility for getting the work done"? If he was told this, of course he is entitled to his commission; but if he just assumed the responsibility, however generously intending, it is another matter. The use of his plant could also have been refused, or, if used without his authority, he could recover a fair hire and wear-and-tear charge from the firm responsible for the work.

FAIRPLAY.

Damp-proof Coating for Brickwork.

SIR,—May I ask if you can recommend the following damp-proof coating for brickwork (exterior):—½ lb. mottled soap dissolved in one gallon of boiling water; apply without forming a lather; allow 24 hours to dry; solution of ¼ lb. alum in four gallons of water; apply over soap? The soap and alum form an insoluble varnish which rain cannot penetrate.

H. C. LEE.

Filtering Sewage.

[REPLY TO "SANITARY," MAY 16.]

SIR,—It is true that coke breeze, especially if of imperfect combustion, is apt to smell after short use. A better and more lasting material for this purpose is destructor clinker.

BURNUM.

THE WEEK IN PARLIAMENT

WESTMINSTER, Wednesday.

Slum Clearance Bill.

Standing Committee "A" of the House of Commons has at last passed Clause 1 of the Housing (No. 2) Bill, which embodies the proposals of the Government for the clearance of slum areas. Clause 1 lays down provision for the declaration by local authorities of unhealthy areas to be slum areas. Mr. Chamberlain moved the first of a series of amendments with the object of ensuring the early redevelopment on suitable lines of areas which have been cleared, so that those areas will not remain derelict.

Mr. Greenwood, however, resisted the amendment, declaring that it would give an advantage to the property owners as against the local authorities.

The amendment was negatived by 23 votes to 13.

Sir Kingsley Wood moved an amendment to the effect that, where a local authority determined to purchase the land comprised in a clearance area, an owner's scheme might be submitted, and if it were not approved by the local authority, the latter should specify in what particulars they required its amendment. Also, if approval were refused, or the owners did not accept any amendments of the scheme required, the local authority might purchase the land and thereafter proceed as if no such scheme had been submitted.

The amendment was rejected by 14 votes to 11.

Col. Ruggles-Brise then moved an amendment providing that a local authority should not purchase land within a clearance area unless they wanted such land for rehousing members of the working classes, or for reservation as an open space. He said the Bill might not be used to enable local authorities to acquire such land at a reduced site value for purposes other than the two mentioned in his amendment. He wished to prevent a local authority using ratepayers' money to compete with traders in the neighbourhood.

Mr. Greenwood said as the law stood at present, local authorities had power to buy land whether they wanted it for housing or open spaces or not, and he failed to see why their liberty should be curtailed.

The amendment was negatived.

On the motion that Clause 1 stand part of the Bill, Sir Kingsley Wood urged the Minister to consult the Attorney-General to see if the clause could be made more intelligible, particularly with regard to the meaning of the word "area." The Bill, further, did not deal satisfactorily with small shopkeepers who might be displaced. They were, apparently, to be turned out into the street and ruined without any recompense for the loss of goodwill. A proper basis of compensation, to which they should be entitled as a right, should be embodied in the Bill.

Mr. Greenwood denied that there had ever been any misapprehension in the minds of local authorities as to the meaning of the word "area" as it appeared in the Bill. He promised, however, to consider whether the meaning could be made still clearer. The other points raised by Sir K. Wood would be dealt with later.

Clause 1 was then carried by 20 votes to 12.

THE BUILDING TRADE

USE AND ABUSE OF BUILDING MATERIALS

By A. M. GILES, B.Sc., A.I.Struct.E., A.M.I.E.E.

XXI.—CEMENT (*continued*).

SOUNDNESS.—It may be said that the soundness test is one whose real value is not yet fully appreciated. The reason for this is rather surprising since there are many who consider it to be almost the most important of the cement tests. As the soundness test is clearly explained and provided for in the British Standard Specification for Portland cement and as the value of the test has almost international recognition, it is just as well for us to become familiar with the property of soundness and to understand how the test is of value.

It is well known that in making concrete there is a considerable decrease in volume when the dry ingredients of the concrete are mixed with water. After the concrete has once set, however, there is an expansion or increase in bulk and this may not become evident until many years have elapsed. Should this expansion be very great cracking or splitting of the concrete may take place, and it is quite impossible to estimate the probable damage. This is just why the soundness test is of such immense importance. It is acknowledged that all cements, after setting, will slowly expand in bulk and this is said to be due to delayed chemical action, i.e., that complete hydration of the excess lime did not take place at the proper time. Excessive expansion is thought to be due to either insufficient calcination and grinding or to the presence of an excess of lime in the cement. It is the measurement of this post-setting expansion which is included in the test for soundness.

Since it cannot be convenient to cement manufacturers for an experimental test of this nature to be spread over many years, an accelerated method of producing this after-setting expansion has to be adopted, and it has been found that, if the cement be placed in boiling water, an obvious and measurable expansion takes place in a few hours as compared with the many years mentioned above. Before the test takes place the sample to be tested should be aerated by being spread out in a layer not more than 3 in. thick and left for 24 hours in a temperature of from 58 to 64 deg. Fahr.

The B.E.S. specification method for carrying out the test is called the "Le Chatelier" test, and the apparatus used is known as the "Chatelier" tongs. This consists of a mould in the shape of a cylinder. It has the same diameter as height, viz., 3 millimetres or 1.18 ins. It is made of spring brass and is split along one side, i.e., along a side at right angles to its cross-section. To each side of the split is attached an arm. The length of these arms, measured from the centre of the mould, is 165 millimetres, of 6.5 ins. The distance between the pointed ends of these arms serves to indicate the amount that the split ring has been forced open.

The cement is made into a paste with water and then placed in the mould, the bottom edge of which is resting on a piece of glass. While this is being done the edges of the mould are held together, sometimes by a rubber band. When the mould is filled another piece of glass is placed over the top and a small weight on that to keep it in position. The whole arrangement is then immersed in water at a temperature of from 58 to 64 deg. Fahr., and kept there for 24 hours.

At the end of that time the rubber band, or whatever has been used for keeping the edges of the split cylinder together, is removed and the distance between the ends of the two indicator arms is accurately measured. The mould, with the cement as before, is again placed in the water which is brought to the boiling point in about 25 to 30 minutes, and kept boiling for six hours. It is then removed from the water and, after it has cooled, the distance between the ends of the indicator arms is again measured. Then the differences between the first and the second measurement gives the amount of expansion and is an indication of the soundness of the cement. The Standard Cement specification says that this expansion shall not exceed 10 millimetres or 0.4 in. In the event of the measurement being too great a further test shall be made from another portion of the same sample after it has been aerated for seven days. After test the expansion shall not exceed 5 millimetres or 0.2 in.

With many of the well-known brands of cement it is not unusual to find the expansion is in the neighbourhood of 2 or 3 millimetres, or even less. However, it is rather curious and rather anomalous to find it stated that some cements which fail to satisfy this soundness test have been known to make very sound concrete.

There is a somewhat simpler method for getting an idea of the soundness of cement. It consists in placing a pat of cement, about 3 in. in diameter, on a plate of glass about 4 in. sq. The pat is then worked by a trowel from the edge to the centre, so that when finished the thickness at the centre is about half an inch, and it tapers away, to be very thin at the edge. This is kept in a moist atmosphere for 24 hours and then placed about an inch above boiling water, so that it is in an atmosphere of steam for about 5 hours. After cooling, it can be removed from the glass, when it should be seen that it had retained the lens-shape, viz., flat on one side and convex on the other, and, further, gave a clear-sounding ring when struck with the knuckle or even a lead pencil.

Since, along with any supply of cement, a certificate giving the values obtained by the various tests is always available, the average builder does not usually worry himself as to why a cement sets. It is sufficient for him that it does set. Besides, were he to trouble, he would find himself up against all sorts of theories, and it is far from the purpose here to introduce any discussion as to the merits of any particular theory. As may be gathered from what has been already said, cement is obtained by the calcination or burning of a mixture of chalk and clay. During the process, water is driven off, *i.e.*, the material is rendered more or less anhydrous. To make the cement set water must be added, and, therefore, in some way, it would seem that the water enters into chemical combination with the cement, and this, therefore, must be the basis from which any of the setting theories have been developed.

The action of frost upon the setting of cement should not be disregarded. It has often been said that frost will produce irreparable damage. It is, however, not quite as bad as that, since frost is only thought to delay the chemical action that takes place during the setting stage, though it is known that the strength of the final set is somewhat diminished. In some parts of America, when it is known that the cement is likely to be subjected to a temperature round about freezing-point during its setting, it is the practice, we are told, to put about a pound of salt to every 18 gallons of gauging water. The amount of salt is increased if the temperature is likely to be lower than the freezing-point.

Next to the silica and the lime, alumina is said to be a very important constituent of the composition of cement, since it is known that it has a considerable influence upon its properties. It is usually agreed that if the amount of silica present is less than it should be, then the alumina content should be higher. Generally speaking, if the alumina content is high, then there is a tendency for the cement to be quick-setting, and, in a short time after setting, to give fairly high values for the strength tests, while if the silica content is high we get a slow-setting cement with gradually increasing strength values. Users of cement should make it their business to study closely the chemical composition as set out in the certificate of tests which usually accompanies a supply of cement.

Cement with a high alumina content is often spoken of as aluminous cement. Though it originally came from France it is now manufactured in England by calcining or burning together lime and the mineral bauxite the composition of which is high in alumina. The resulting slag is ground to a fineness similar to that of ordinary Portland cement. Although it does not satisfy the British standard specification, as the percentage of silica is lower than it should be, in both tensile and compressive strengths it is quite up to standard; in fact, if mixed with sand in the proportion of one of cement to three of sand it has, at the end of twenty-four hours after gauging, a tensile strength of almost 440 lb. per sq. in., and a compressive strength of just under 5,000 lb. per sq. in. It is even claimed that piles made of aluminous cement have been successfully driven when only a day old.

A rather peculiar point about this cement is that, during its setting, an appreciable amount of heat is evolved, and this is said to account for the claim that it cannot be injured by frost during the setting process. Although it can be used in very much the same way as ordinary cement there are two quite important precautions. In the first place every possible care must be taken that it does not become contaminated by either lime or ordinary Portland cement, and next, that after the first five or six hours, by which time the cement has usually set, it must still be kept wet in order to make up for the water that may have been lost by evaporation because of the heat generated during the setting.

Even a small percentage of iron oxide has a decided influence upon the colour of cement. To obtain a really white Portland cement this compound must be absent from its composition, or at any rate there must be only minute traces of it. Though we do not find white Portland cement manufactured in this country, it is obtainable from America.

There seems, however, to be a growing demand for the supply of coloured cements for certain purposes such as brickwork, tiles, and even hard tennis courts. In order to obtain these coloured cements it has been suggested that beside the different iron compounds even vegetable colouring matter may be used. The main difficulty, at present, seems to be in getting an efficient and intimate mixture between the colouring matter and the cement. This, however, is gradually being overcome, because some cement manufacturers have now installed the necessary apparatus for producing a thorough mechanical mixture.

Further, it is claimed that the mechanical properties of many of the coloured cements are almost equal to those of pure cement. One is bound to confess, however, that this is not endorsed by personal experience since it has been found, as the result of a number of tests, that both the tensile and compressive strengths at seven and 28 days are far below those required by the standard cement specification.

DISCRETION OF "TRUSTEES FOR SALE" AS TO REPAIRS

SINCE the passing of the Law of Property Act, 1925, as well as of other statutes relating to the conveyance of real property, such as the Settled Land Act, 1925, some very difficult questions have arisen as to the discretion that can be exercised by trustees for sale in paying for repairs to the properties they administer as to whether they must be paid for out of income or what class of repair can be paid for out of capital.

"Trustees for sale" are defined in section 205 (xxix) of the Law of Property Act, 1925, as meaning the persons (including a personal representative) holding land on trust for sale with or without a power at discretion to postpone the sale, which includes a very large class of persons acting under wills or settlements, and the legislation which claimed to simplify the law has raised a difficult question which has been the subject of several rather conflicting decisions, but some amount of certainty has at length been obtained, and although the subject is one of great complexity, it may serve a useful purpose if we indicate as briefly as possible how the matter now appears to stand.

The difficulty has arisen, to state it very shortly, as follows:—Section 28, sub-section (1) of the Law of Property Act, 1925, defined the powers of management conferred upon trustees for sale by reference to the Settled Land Act, 1925; that is to say, they were to have all the powers of a tenant for life and of the trustees of a settlement under the Settled Land Act, including in relation to land the powers of management conferred by that Act during a minority. Sub-section (2) then provides: "Subject to any direction to the contrary in the disposition on trust for sale or in the settlement of the proceeds of sale, the net rents and profits of the land until sale, after keeping down the cost of repairs and insurance and other outgoings, shall be paid or applied except so far as any part thereof may be liable to be set aside as capital money under the Settled Land Act, 1925, in the like manner as the income of investments representing the purchase money would be payable or applicable if a sale had been made and the proceeds had been duly invested." Section 102 of the Settled Land Act, 1925, set out the powers of trustees during minority, and amongst those powers, which are set out in sub-section (2), are powers contained in paragraph (b) "to erect, pull down, rebuild and repair houses and other buildings and erections," and sub-section (3) provides that "the trustees may from time to time out of the income of the land . . . pay the expenses incurred in the management, or in the exercise of any power conferred by this section. . . ." "Improvements" are, moreover, dealt with in sections 82 to 89 of the Settled Land Act and the Third Schedule to that Act.

It has been contended (and in the case In re Gray (1927, 1 Ch. 242) an opinion to that effect was expressed by the Court, but since explained by the same learned Judge in In re Conquest (1929, 2 Ch. 353)) that this legislation forms a complete code and that the equitable powers hitherto exercised by the Courts had been taken away.

The importance to trustees of a decision on this point is obvious as they take over property in all states of repair, and it is a matter of the greatest interest to the persons interested in the properties that the cost of the repairs according to their character should be equitably apportioned as between income and capital, and the loss of any discretion under the direction of the Courts would involve hardship in many cases. A reference to the cases decided may be of service to those entrusted with the management of properties as trustees for sale, but we will say at once that the balance of opinion as expressed in the cases appears to be against the contention set out above that the legislation forms a strict code which cannot be departed from.

In In re Gray (*ubi sup.*) part of the property subject to the trusts of a settlement which contained no provisions as to repairs consisted of a block of twelve separate sets of flats. The trustees had advanced a sum, part of the trust estate, on a mortgage on the flats, but had had to foreclose, thus becoming "trustees for sale," and at the request of all the beneficiaries had retained the flats unsold. The life tenant had subsequently become bankrupt and his life interest under the settlement had been sold and assigned to the defendants, the Public Trustee being the plaintiff.

For the year 1925 the rents amounted to £831 10s. 4d., and the outgoings, including internal painting, to £402 10s. 4d. The internal repairs had been paid out of income, but no outside painting or repairs had been executed since 1917, and thus structural repairs became necessary estimated to cost £201 6s. The principal item was outside painting, but a parapet and some walls and chimneys required pointing, and the roof, gutters, skylight, etc., repairing. The summons was taken out for directions, raising the point amongst other questions whether the repairs in question should be done out of income or whether some portion of them relating to substantial matters occasioned by the neglect could not be ordered to be paid out of capital under the discretionary powers vested in the Court as laid down in In re Hotchkys (1886, 32 Ch. Div. 408). The Court held that the new legislation was intended to provide a complete code and that under section 28 sub-section (2) of the Law of Property Act and section 102 of the Settled Land Act the repairs must be paid for out of income. We may mention here that it was held in this case that the reference in section 28 "during a minority" does not limit the effect of that section but is inserted there merely to indicate the powers to be exercised by reference to the Settled Land Act, a view adopted in the subsequent cases. This case, however, was discussed and explained in In re Robins (1928, 1 Ch. 721). There the trustees under a will held certain property on trust for certain classes of persons with a power of sale after the death of some of them. Some portion of the property was house property, and a dangerous structure notice under the Town Improvement Clauses Act, 1847, had been served upon the trustees. The trustees executed the necessary repairs, and, without prejudice as to how they should ultimately be borne, paid the costs out of income, but then applied to the Court for directions.

The Court intimated that this expenditure, being of a character which would, if the owner made default, give the authority a power of sale, was one which, apart from the recent legislation, the Court would order to be paid out of capital so that the burden might be equitably distributed between capital and income, but then considered the above legislation and held that the effect of the sections was that the trustees have a discretion in regard to the cost of repairs whether they will pay them out of income or not, and that section 28 sub-section (2) of the Law of Property Act did not deprive them of a discretion in the matter, and distinguished In re Gray on the ground that in that case the trustees had already paid for some of the repairs out of income and contemplated dealing with further necessary repairs on the same principle, but the assignee of the life interest had objected to this exercise of their discretion, and the Court had held that as they possessed that discretion under the legislation the Court would not interfere.

The matter has, however, now been carried farther by the very recent decision in In re Smith (1930, 1 Ch. 88). There the property held by trustees for sale consisted largely of freehold cottage property which at the date of the intestate's death was in a very bad condition. Since his death the local authority had on several occasions served notices requiring repairs of a substantial character such as re-roofing, conversion of closets, pointing, etc., and the following questions were submitted to the Court: (a) Whether the repairs required at the death of the intestate ought to be borne by capital irrespective of the nature of the repairs; (b) whether all repairs which were improvements within Part I and II of the Third Schedule to the Settled Land Act, 1925, ought to be borne by capital, and (c) whether repairs which were not improvements as above ought to be borne by income even though they might constitute permanent improvements. The Court carefully reviewed all the decisions and followed the case In re Robins (*ubi sup.*).

The question left to the Court in this case, however, raised another point that must be noticed. The above cases were decided with reference to section 102 of the Settled Land Act, 1925, but that Act deals in section 83 with "Improvements," and in the Third Schedule there are three parts, which were thus explained by the Court in In re Whitaker (1929, 1 Ch. 662): "In the first part are enumerated under 25 heads improvements the cost of which are not liable to be replaced by instalments—that is to say, improvements to be paid out of capital; Part II contains a list of improvements under six heads, the costs of which the trustees of the settlement or the Court may required to be replaced by instalments; and Part III a list under three heads, the costs of which the trustees of the settlement or the Court must require to be replaced by instalments." In that case, in consequence of several dangerous structure notices, expenditure had been incurred in the nature of pulling down and rebuilding in consequence of the age of the buildings and certain original faults in construction, and the Court held that the expenditure so incurred fell within either Part I or Part II of the Schedule and gave a direction that it should be paid out of capital. There are expressions in the judgment in that case that if the provisions of section 83 of the Settled Land Act and the Schedules are taken into consideration, then the legislature did intend the new Acts to form something in the nature of a complete code, and the learned Judge treated In re Robins as having decided that the repairs there in question fell within either Part I or Part II of the Schedule. That does not appear so from the report in the Law Reports, and in In re Smith the Court stated that that was not the case, and the Court dealt with the questions asked as follows:—That the repairs at the death of the intestate should not be borne by capital irrespective of their nature; repairs in the nature of improvements within Parts I and II of the Schedule may properly, and *prima facie* should be, borne by capital, and also that repairs which are not within those parts of the Schedule may be borne out of capital if it is established that they are works of permanent improvement of the property, but that casual repairs which fall in the ordinary course to be carried out by a person in possession of the property and the cost of which is generally payable by the tenant for life cannot be treated as coming within the description "permanent improvements."

We have endeavoured to explain how the law stands at present, but considering the conflict in the decisions a pronouncement on the whole question by the Court of Appeal would be welcomed.

International Congress of Surveyors, Zurich.

The International Congress of Surveyors will this year be held in Zurich from September 11 to 14. The President of the International Society of Surveyors, Mr. Ph. Jarré, of Paris, will preside. Full details are obtainable from the General Secretary, Lindenhofstr. 4, Zurich 1.

WORLD BUILDING CONGRESS

EIGHT hundred delegates from 35 countries will foregather in London next week for the 5th International Congress of Building and Public Works Contractors, to be held under the patronage of His Majesty the King, at the Central Hall, Westminster, from May 26 to 30. The congress is taking place at the joint invitation of the National Federation of Building Trades Employers and the Federation of Civil Engineering Contractors. Mr. G. Mowlem Burt, President of the International Federation, will preside over this, the first of these congresses to be held in this country.

Before the opening session, the principal delegates will be entertained at luncheon by the Government, the First Commissioner of Works, Mr. G. Lansbury, being in the chair. The President is holding a reception at the Natural History Museum on the Wednesday evening, when the Dominion and foreign guests will have the honour of meeting His Royal Highness the Duke of York. The importance of the congress is best indicated by the size of the industries represented. No less than one million people are directly employed in building and public works construction in Great Britain, and the indirect employment is estimated at another million.

The opening session on Monday afternoon will be inaugurated by a welcome to the delegates by the Foreign Secretary, the Rt. Hon. Arthur Henderson, M.P. On the Tuesday morning the congress will consider reports on rationalisation as applicable to building and constructional works, and the financing of middle-class houses and other constructional works. The Rt. Hon. J. H. Thomas, M.P., has kindly consented to open the proceedings of this session.

The report of the British Committee on Rationalisation, of which Lord Amulree is chairman, will point out the need for increased efficiency and economy in order that work may be accelerated and costs reduced. It is suggested that by such means a larger demand can be stimulated, with better continuity of work for all engaged in the industry.

The subjects for the afternoon session are scientific research (to be introduced by Lord Parmoor, Lord President of the Council) and conditions of contract. The report of this Committee contends that scientific research may best be extended by the establishment of research associations, with State aid if necessary, in one or more sections of the industry; by increased financial and technical support of the Building Research Station; by the establishment of additional University chairs of building; by increased support of the British Engineering Standards Association; and by the pooling of Imperial and International knowledge and experience.

On the Wednesday morning, the congress will give attention to working-class housing and to the application of safety measures. The Committee which has investigated the influences operating against the resumption of private enterprise, the effects of State action and the effects of the subsidy, has found the Rent Restriction Act to be "the root problem."

On Wednesday afternoon, consideration will be given to a report on education. This session will be opened by Lord Eustace Percy. On Monday evening there will be a special entertainment at the Stoll Picture Theatre, on Tuesday evening a special entertainment at the Coliseum, and Thursday will be spent in a visit to a cement works on the Thames in the morning, and to Hampton Court in the afternoon. The closing session of the congress will take place on Friday, and the closing banquet will take place on that evening.

Upon the occasion of this congress questions relating to wages and hours of labour will not be discussed. It is thought that so far at least as this country is concerned, machinery exists whereby employers and operatives engaged in the industries of building and public works are able to adjust industrial questions of this kind with reasonable satisfaction to themselves, and in such a manner as to prevent any undue friction. The machinery provided in this country has certainly been such as to prevent anything in the nature of a strike or lockout now for a good many years past.

Beginning on the Saturday following the congress there will be a *voyage d'étude* lasting eight days, in the itinerary of which are included Oxford, Stratford-on-Avon, the Elan Valley Waterworks, Chester, Port Sunlight, the Mersey Tunnel, Liverpool Cathedral, the English Lakes, Glasgow, Edinburgh, and Newcastle.

CHADWICK PUBLIC LECTURES

Collection and Disposal of Refuse.

IN the course of this lecture at the Royal Sanitary Institute on May 15, Mr. Edward Willis, M.Inst.C.E., F.S.I., said that the collection of house refuse was entirely neglected until the last century, and other types of town refuse also received more or less scant consideration until the passing of the 1875 Act, except in special cities where private Acts of Parliament provided for sanitation. He then dealt with the various means of disposal, including indiscriminate dumping, the use of destructors, pulverisors, dumping out to sea, and finally the advantages of controlled shoots, this method having been brought very much into prominence by the city of Bradford, and supported strongly in many instances by the Ministry of Health. He emphasised, however, that whilst a controlled dump was undoubtedly most efficient and economical in many instances, it was equally unsuitable and should never be applied on water-logged ground, since it was liable to pollute the ground water. It was also unsuitable for certain water-bearing strata, but in many cases it was an exceptionally useful method of treatment. The indiscriminate dumping of refuse was a complete nuisance and should be absolutely stopped under all circumstances.

Whilst the destructor served a very useful purpose, it was often desirable to screen the refuse before actual disposal, since the calorific value of the dust was probably only 2,500 B.T.U.s, whereas the screened refuse would have a B.T.U. value of over 8,000. Again, the actual dust screened out was valuable as salvage for brick burning. The "salvage" question was a larger one than most people considered it, since any useful income from the collection or disposal of refuse was in effect "salvage"; thus waste land otherwise useless when treated with refuse on the controlled principle was subsequently able to be used for cricket and football grounds, and brought in a regular income.

HEAT TREATMENT—FURNACES AND GAS

IN the course of a paper read before the Institute of Fuel, at the Chemical Society's Rooms, Piccadilly, on May 14, entitled "The Utilisation of Town's Gas as a Fuel in Heat Treatment-Furnaces," Mr. C. M. Walter, D.Sc., said that the characteristics of cleanliness and freedom from sulphur compounds associated with town's gas were distinct advantages over producer gases of high sulphur content, and it was usually found that a higher thermal efficiency could be obtained by the use of town's gas in certain operations. Comparatively small space was taken up by the modern furnace working on town's gas, and the ease with which automatic control could be applied, owing to the high B.Th.U. concentration of the gas justified its adoption when total operating costs, including both fuel and incidental charges, were taken into account. Cost per B.Th.U. was the deciding factor, and providing town's gas could be supplied at a sufficiently low price it would be capable of carrying out satisfactorily practically every industrial heating operation for which solid fuel or producer gas was used at the present time. To-day town's gas of a calorific value of 500 B.Th.U.s per cubic foot or more was available in certain industrial districts at a cost as low as 2.7d. per therm. In Sheffield, where advantage was being taken of a surplus coke oven gas supply being linked up with the town's gas-supply mains, the cost on a B.Th.U. basis had been reduced to such a point that one large firm had proved it desirable to replace some of their very large rivet heating and annealing furnaces, hitherto heated by solid fuel, with town's gas direct from the main. It had also been found that many operations could be carried out at lower fuel costs than with fuel oil, advantages of cleanliness and ease of handling being gained also. The large amount of research work carried out during recent years on refractory materials had led to the very high efficiencies which were now obtainable with the modern type of recuperator furnace.

HOUSES AT COST PRICE

The Twickenham Town Council has raised an interesting question relating to the sale of house property which is now being discussed with the Ministry of Health. The Corporation applied to the Ministry for permission to sell certain houses at £550 and others at £570 each, which, it was stated, represented the actual cost, without profit or loss to the authority. It is proposed to erect houses and sell them to tenants, allowing them to pay the purchase-money by instalments. It is understood that the Ministry of Health do not agree that the sale prices proposed by the Corporation represent the total expenditure by the authority, and, according to *The Times*, take the view that to sell the houses for the amounts stated would be unfair competition with private builders. It is also argued that the proposal of the Corporation is a contravention of section 59 of the Housing Act, 1925, which states that land and houses sold or leased "shall be sold or leased at the best price or for the best rent that can reasonably be obtained." Representatives of the Corporation have already had one interview with officials of the Ministry of Health on the subject.

SELL'S REGISTERED TELEGRAPHIC ADDRESSES.

At a moment when additional taxation has been imposed, and business is more or less slack, there is need of "hustle" in business circles. It is advisable to press into service such aids to the lubrication of trade as are available at a moderate figure. In this connection the commercial world can with benefit turn to Sell's Directory of Registered Telegraphic Addresses, which, in its forty-fifth year, is more than ever a monument of valuable information, indispensable on the business-man's bookshelf. The latest issue of Sell's Directory is an example of careful compilation. It is full of important references, and, what is equally of account, these references are well set out. The volume contains some 100,000 telegraphic addresses authenticated by the postal authorities—together with the postal addresses, telephone numbers and trade descriptions of the firms concerned. Other sections deal with lists of newspapers and periodicals, and members of the London and Provincial Stock Exchanges. The section relating to leading bankers, brokers, etc., in the United States, which is a comparatively new and popular feature, has been amplified, and the same remark applies to the information concerning the British Dominions and foreign countries. Altogether the Directory is a compendium, the value of which to business men cannot be overrated. Published by Business Dictionaries, Ltd., 8 and 9, Johnson's-court, E.C.4, its price is 45s.

NEW BUILDINGS IN LONDON

Acton.—Houses.—A lay-out plan has been approved for the development of the land on the south side of Wesley-avenue and to the west of North Acton-lane, W.3, for the Wesley Estates, Ltd., 1, Wesley-avenue, Willesden, N.W.10. The scheme provides for 206 houses.

Acton.—Clinic.—The E.C. has agreed to the purchase of 45-47, Avenue-road, W., for conversion into a school clinic. The council surveyor will prepare the plans.

Bermondsey. — Housing. — Housing Committee of B.C. recommend a scheme estimated to cost £75,650 for the site adjoining Acorn-yard and for the erection of 100 flats.

Burnt Oak.—Shops.—Plans have been approved for 38 shops and flats on a site in the Watling-avenue, N.W., for Mr. W. Newcome Wright, architect and surveyor, 164, Bishopsgate, E.C.1.

Cannon-street.—Reconstruction.—Messrs. Higgs and Hill, Ltd., Crown Works, South Lambeth-road, are builders for the reconstruction of premises formerly occupied by Messrs. Selincourt in Cannon-street, for the Prudential Assurance Co., Ltd. The architect is Surveyor to the company, Chief Office, Holborn Bars, W.C.1.

Carmelite-street.—Building.—The City of London Corporation are recommending the erection of a new dormitory block for girls at the school at an estimated cost of £10,000.

Charlton.—Building. — A new works is being erected for Messrs. Henry Sykes, Ltd., by Messrs. J. Mowlem & Co., Ltd., building contractors, 41, Ebury Bridge-road, S.W.1, to the plans prepared by Mr. J. Herbert Pearson, F.R.I.B.A., architect, 212, Upper Thames-street, E.C.4. Messrs. Young & Co., 6, Queen Anne's-gate, Westminster, S.W.1, are responsible for the constructional steelwork.

Chiswick.—Reconstruction.—The Brentford and Chiswick U.D.C. have decided to accept the tender of Messrs. J. Woollard and Son, Ltd., 52, Churchfield-road, Acton, W.3, at £13,473, for the reconstruction and extension of the public library in Dukes-avenue, W.5. The plans have been prepared by the council's surveyor, Mr. E. Willis.

Croydon.—Bank.—Premises at 102, South End are to be adapted as new branch premises for Lloyds Bank, Ltd. Plans by Mr. T. M. Wilson, F.R.I.B.A., of 14, Staple Inn, W.C.1. The contract has been let to Messrs. H. Frewing, of 90, Godstone-road, Whyteleafe.

Eltham.—Estate.—Messrs. R. J. McKenzie and Sons, Ltd., of Hayes, Middlesex, propose developing the Horn Park estate, at the junction of Eltham-hill and the new Sidcup arterial road. Messrs. McKenzie are building the houses and constructing roads and sewers on the estate. About 250 houses will be built.

Fulham.—Building.—The application by Mr. A. F. Holden, Borough Surveyor, on behalf of the Fulham B.C., for consent to the erection of a building at the junction of North End-road and Vanstone-place has been approved by the L.C.C.

Fulham.—Garages.—The L.C.C. has approved the application made by Mr. W. Doddington, F.R.I.B.A., architect, 262, Earl's Court-road, for consent to the erection of lock-up garages and a workshop at 146, Lillie-road, abutting on Mulgrave-road.

Golders Green.—Church.—The Parochial Church Council of St. Albans are to erect a new church at £25,000. The architect is Sir Gilbert Scott, 7, Gray's Inn-square, W.C.1.

Hampstead.—Rebuilding.—The Hampstead Licensing Bench have granted an application for the rebuilding of the "White Bear" public-house in New End, N.W. The cost will be about £5,000. The owners are the Camden Brewery Co.

Hampstead.—Houses.—With reference to the paragraph which appeared in our last issue under this heading, we stated that Messrs. W. Shurmur and Sons, Ltd., Riverside-works, Upper Clapton, E.5, were building houses at Bunkers Hill, Hampstead Garden Suburb, and that the architect was Mr. J. S. Soutar, F.R.I.B.A., Wylde, North End-road, Hampstead, N.W.3.; this, we understand, is incorrect; the architects are Mr. C. H. James, F.R.I.B.A., and Mr. C. Cowles-Voysey, F.R.I.B.A., and the work has been going on for some time.

Heston.—Estate.—An important scheme is being commenced for the development of the Heston Hall estate for residential purposes. Plans have been prepared for the erection of 151 houses. The builders are Messrs. Perry Bros., 16, Uxbridge-road, Ealing, W.5.

Honor Oak.—Bank.—Mr. W. C. Le Maitre, F.R.I.B.A., 28, Albemarle-street, W.1, has prepared plans for new branch premises for Barclays Bank. The contract has been let to Messrs. Ward and Paterson, Ltd., Broadway-court, Westminster, S.W.1.

Hounslow.—Additions.—Plans have been prepared by Messrs. J. M. Monro and Son, architects, Bath-street, Glasgow, for additions to works in Syon-lane.

Hounslow.—Premises.—A public-house is being erected in Cranford-lane to plans by Mr. M. Seth Ward, 104, Victoria-street, S.W.1. The contractors are Messrs. G. Parker and Sons, of 124, Sumner-road, S.E.15.

King's Cross.—Reconstruction.—The London Underground Railways Co. have under consideration plans for the reconstruction of the station. The scheme is in the hands of the company's staff, 55, Broadway, Westminster, S.W.1.

Leadenhall-street. — Building. — Regarding the paragraph in our last issue referring to "Cunard House," the contract of Messrs. Trollope and Colls, Ltd., 5, Coleman-street, E.C.2, has been accepted for the substructure only and not superstructure as stated.

Lewisham.—School.—The L.C.C. are proposing to purchase a site at Coopers-lane for an elementary school to meet the future needs of the district.

Lincoln's Inn Fields.—Reconstruction.—Messrs. D. Watney and Sons, 4a, Frederick-place, Old Jewry, E.C.4, have prepared plans for reconstruction work at No. 66. The building contractors are Messrs. Holland and Hannen and Cubitts, Gray's Inn-road, W.C.1.

Margaret-street, W.1. — Offices.—Messrs Ashby and Horner, of 1, Aldgate, E., have secured the contract for erecting a block of business premises. The demolition contract has been let to Messrs. St. Mary's Wharf. Plans have been prepared by Messrs. Hendrey and Schooling, Bedford-row, W.C.1.

Marylebone.—Bank.—Premises in Upper Baker-street, N.W.1, have been acquired by Messrs. Martins Bank, Ltd., of Liverpool, for conversion into branch offices.

Moorgate-place, E.C.—Extensions.—Mr. J. J. Joass, F.R.I.B.A., 40, St. James'-place, S.W., has prepared plans for the extension of the headquarters of the Institute of Chartered Accountants. The contract has been let to Messrs. James Carmichael (Contractors), Ltd., Trinity-road, S.W.

Old Bond-street.—Bank.—A portion of the new building being erected at the corner of Old Bond-street and Burlington-gardens, W.1, to the plans of Mr. Edward A. Stone, F.S.I., 20, Berkeley-street, W.1, has been acquired by the National Provincial Bank, Ltd., for conversion into branch offices. The bank's chief architect is Mr. F. C. R. Palmer, F.R.I.B.A., 15, Bishopsgate, E.C.3.

Park-lane.—Shops.—As the result of a deal which has been carried through, a row of high-class shops, with flats over, will shortly be built in Park-lane. The site which has been secured for the purpose is that now occupied by Aldford House. Mr. J. A. Phillips, of 24, Pall-mall, is, we understand, the purchaser of Aldford House.

Southwark. — Enlargement. — The Bermondsey B.C. has received a notice from the L.C.C. of their intention to enlarge the Walworth Central School, Mina-road, so as to provide new public elementary school accommodation for about 200 children.

Stepney.—Rebuilding.—The rebuilding of the old business premises of Mr. W. Chesneau, at 173, Commercial-road, Stepney, has commenced. The contractors are Messrs. W. Silcock & Son, of Cannon-street-road, E., and Messrs. Shaie, of Limehouse, are supplying all steelwork, including metal sashes. Mr. A. G. Moulton, 273, Commercial-road, E.1, is the architect and surveyor.

Store-street.—Rebuilding.—An important contract has been placed with Messrs. Mullen and Lumsden, Ltd., 41, Eagle-street, Holborn, W.C.2, for the rebuilding of fifteen shops, etc., at Nos. 28 to 42, inclusive. The plans have been prepared by Mr. Christian C. T. Dell, F.R.I.B.A., 5, Southampton-street, Bloomsbury, W.C.1.

Temple Fortune.—Rebuilding.—Plans have been prepared for the rebuilding of St. Barnabas Church.

Westminster.—Rebuilding.—The L.C.C. are carrying out demolition work at Nos. 27-29-31, Great Peter-street. The site is to be disposed of for rebuilding. The architect concerned is Mr. A. M. Cawthorne, 54, Victoria-street, S.W.1.

Willesden.—Dairy.—Plans have been approved for the erection of a dairy shop, lock-up, etc., at Haycroft Farm, for the United Dairies, Ltd., Palace-court, Bayswater, W.2. The architect is Mr. F. T. Dear, A.R.I.B.A.

Willesden.—Flats.—Plans have been passed for 28 flats in Malvern-road for the Willesden Housing Society. The architects are Messrs. Brightiff and Brightiff, 131, Baker-street, W.1.

Wimbledon Chase.—Alterations.—Messrs. J. R. Offer and Son, of Union-street, Kingston, are making alterations to premises in Station-parade, to be opened as a branch office of the National Provincial Bank, Ltd. The architect is Mr. F. C. R. Palmer, F.R.I.B.A., of 15, Bishopsgate, E.C.

Winchmore Hill. — Tea-room. — For the erection of a tea-room at Grovelands Park, for the Southgate U.D.C., the contract has been entrusted with Messrs. Ginn & Wildman, of Buxted-road, Finchley, N.12, who estimated the work at £2,056.

NEW CINEMAS

Morecambe.—Considerable alterations to the general building are planned by the proprietors of the Whitehall Picture House, Morecambe, Lancs.

Birmingham.—A cinema is to be erected on a site known as Willow Cottage, Pershore-road, Stirchley. The promoter of the scheme is Mr. Joseph Cohen, of 72, Woodbourne-road, Edgbaston.

Hackney.—The B.C. has passed plans for the erection of an addition to Empress Electric Theatre, Mare-street, to abut upon St. Thomas's-square. The architect is Mr. C. A. Aish, F.S.I., 22, Bedford-street, W.C.2.

Chesterfield.—A contract for the extensions to the Picture House, Holywell-street, Chesterfield (Mr. H. J. Shepperd, Town Hall-chambers, 87, Fargate, Sheffield, architect), has been awarded to Messrs. W. G. Robson and Co., of Sheffield.

Proposed Street-widening Scheme, City.

A scheme has been submitted to the City Corporation for widening Queen Victoria-street to a minimum of 70 ft. between Great Trinity-lane and Garlick Hill. It is recommended that the improvement be carried out at an estimated cost of £250,928, subject to the Ministry of Transport and the London County Council contributing towards the cost thereof.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plum-bers.	Pain-ters.	Lab-ourers.
Aberdare	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Aldershot	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Alfreton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Alnwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashford (Kent)	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11
Ashington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2
Aylesham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11
Banbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnstaple	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/8½	1/8½	1/8½	1/9½	1/8½	1/8½	1/8½	1/3½
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bognor Regis	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bradford-on-Avon	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Braintree	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Brentwood	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bridlington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bromsgrove	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bromyard	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Bungay	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Buxton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Carlisle	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chorley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cirencester	1/4	1/4	1/4	1/4	1/4	1/3	1/0	11
Clacton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	1/2
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	1/2
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cranbrook	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11	11
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½	11
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Deal	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Denbigh	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Devizes	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Dewsbury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dorchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Dorking	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Dovercourt	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Driffield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Droitwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ely	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½	11
Exeter	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Exmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Fakenham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Felixstowe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Frome	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Glossop	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Gosport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harpenden	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hatfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hednesford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Herne Bay	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hunstanton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½	11
Huntingdon	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Isle of Wight	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
King's Lynn	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lancaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plum-bers.	Pain-ters.	Lab-ourers.
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leighton Buzzard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Littlehampton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Liverpool	1/8½	1/8½	1/8½	1/9½	1/8½	1/8½	1/8½	1/3½
Llandudno	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London:								
12 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/3½
12-15 m. radius	1/8	1/8	1/8	1/8*	1/8	1/8	1/7	1/3½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Lowestoft	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Luton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Macclesfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Maidstone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Malvern	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Margate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Market Harb'rough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Matlock	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Melton Constable	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Melton Mowbray	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Merthyr Tydfil	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newark	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Newbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-ur-Lyme	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
New Forest	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/1½
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Nuneaton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Paignton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Pontypridd	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Portsmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ramsgate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Reading	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Redcar	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Redditch	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Reigate	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Retford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ripon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rugby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Saffron Walden	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sawbridgeworth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Saxmundham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11
Scarborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sevenoaks	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Southampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southend-on-Sea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stevenage	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stowmarket	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Stratford-on-Avon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swaffham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Tamworth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/1½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Thetford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Totnes	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Trowbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Uttoxeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsden	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warminster	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wells (Norfolk)	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Weston-sup-Mare	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Weymouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Whitby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wisbech	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Woodbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Worthing	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wrexham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wycombe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wymondham	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
York	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 1023.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.: Engineer, E.: Borough Architect, B.A.; Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc

MAY 26.

Briton Ferry.—Renovation.—Also decoration, etc., at Working Men's Club and Institute. Secretary. Dep. £2 2s

Doncaster.—Houses.—23, at Wheatley, for C.B. F. Oscar Kirby, B.E., 2, Priory-place. Dep. £5 5s.

Dublin.—Garage.—Additional garage accommodation at "Killarney Hotel," "Caragh Lake Hotel" and "Mallaranny Hotel," for Great Southern Railways. A. W. Bretrand, chief engineer, Westland Row Station, Dublin, C.17. Dep. £1 1s.

Edinburgh.—Painting.—At institution and its branches, for Royal Infirmary. H. Maw, Secretary.

Glamorgan. — Building. — Caerphilly Girls' Secondary school, new gymnasium, and Port Talbot Secondary school, alterations and additions, for C.C. H. Rowland, Clerk, Glamorgan County Hall, Cardiff.

Liverpool.—School.—New elementary school at Prince Edwin-st., for T.C. Land Steward and Surveyor. Dep £2 2s.

London.—Reconstruction.—Demolition, etc., works and reconstruction of wharf building and contingent works at southern end of 26 Wharf, 175, Harrow-rd., W.2, for Paddington B.C. B.E. Dep. £1 1s.

Marple.—Houses.—Fourteen, on Brindley Farm estate, for U.D.C. Halliday & Agate, architects, 14, John Dalton-st., Manchester. Dep. £1 1s.

Molesey.—Railings.—200 yds. wrought-iron railings, 5 ft. high, and one pair of ornamental wrought-iron gates, for East and West Molesey U.D.C. E. H. Hutton, S.

Rhondda Valley.—Building.—Police station at Maerdy, for Glamorgan C.C. W. Gough Jenkins, deputy clerk to C.C.

Salford.—Plumbing.—Structural alterations and plumbing work at 1 and 3, Irwell-place, Crescent, for Insurance Committee. Clerk, Salford Insurance Committee, St. Philip's-place.

Sketty.—Renovation.—Of Bethel Welsh Chapel, Sketty. William Anthony, Chapel House, Sketty. Dep. £1 1s.

Stevenage.—Barns.—58 brick barns for houses in course of erection in Whites Mead-rd., for U.D.C. Reg. A. Gandy, E. and S. Dep. £2 2s.

Swansea.—Installation.—Of heating at existing Central Library buildings. T.C., Guildhall. Dep. £3 3s.

Woking.—Shelter.—Shelter, with dressing rooms and sanitary conveniences, at Knaphill recreation ground, for U.D.C. G. J. Wooldridge, E. and S.

MAY 27.

Braintree.—Houses.—10, at Great Saling, for R.D.C. E. O. Wheeler, Housing S., St. Peter's Close, Bocking.

Castleford. — Conveniences. — Conveniences in Bradley-st., for U.D.C. S. Dep. £1 1s.

Devon.—Houses.—Burrington, house for police constable, 1 at Hartland, and 1 at Yarcombe, for C.C. County Architect's Office, 97, Heavitree-rd., Exeter.

Epsom.—Pavilion.—Timber pavilion, at Court recreation ground, off Pound-lane, for U.D.C. E. G. Timbrell, E. and S., 33, Church-st.

Felixstowe.—Enlargement.—Of junior mixed Council school, Maidstone-rd., for East Suffolk E.C. County Architect, County Hall, Ipswich. Dep. £2 2s.

Herne Bay.—Dwellings.—10 workmen's dwellings in 2 blocks of 5 in Claremont-st., for U.D.C. B. J. Wormleighton, E. and S. Dep. £1 1s.

Larne.—Extension.—To Municipal Technical School, for Technical Instruction Committee. M'Carthy & Lilburn, quantity surveyors, Scottish Provident-buildings, Belfast. Dep. £1.

Limerick. — Rebuilding. — Recreation rooms destroyed by fire, at Limerick Junction, for Great Southern Railways. A. W. Brentland, Chief Engineer, Westland-row Station, Dublin, C.5.

London.—Building.—Erection of "Kensington" Telephone Exchange in Draycott-av., Chelsea, S.W., for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-st., S.W.1. Dep. £1 1s.

Monmouth.—Decorations.—Also repairs at hospital, for Committee, S. W. E. Gilliat, hon. secretary.

New Worthy.—Floor.—Laying the maple floor for Gladstone Hall, Liberal Club, Skilbeck-st., New Wortley. Secretary.

Plymouth.—Partitions.—Providing and raising partitions and necessary decorations of 12 flats, and interior decorations of 3 bungalows, at Elphinstone, for T.C. J. Wibberley, City Engineer and Architect, Sun-buildings. Dep. £1 1s.

Southend-on-Sea.—Painting.—Cleaning and painting at various Council schools, for C.B. F. W. Smith, A.R.I.B.A. Dep. £1.

Teddington.—House.—Caretaker's house at Cemetery, for P.C. W. H. Guest Hubbard, architect, 28, Manchester-st., Luton.

Wallsend.—Building.—New Stephenson Memorial Council school at Willington Quay, for T.C. Percy L. Browne & Son, architects, Newcastle-upon-Tyne. Dep. £2 2s.

Woodbridge.—Cottages.—4, at Martlesham, for R.D.C. Dep. £2 2s.

MAY 28.

Cleveleys.—Library.—County branch library, for Lancashire E.C. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston. Dep. £2.

Edinburgh.—Widening.—Reinforced concrete post and wire fencing, also concrete gate posts and double-leafed iron gates, near Drum Brae-rd., for T.C. City-road Surveyor.

Glamorgan.—Repairs.—Also painting work at South Wales and Monmouthshire Industrial School, Quakers-yard, Glam, for Managers, Johnson, Richards & Rees, architects and surveyors, Merthyr Tydfil.

***Wetherby, Yorks.**—Hotel.—J. Stanley Wright, 71, Albion-st., Leeds. Dep. £1 1s.

MAY 29.

Belfast.—Conveniences.—Public sanitary convenience in Crown Entry, for C.B. R. B. Donald, City S.

Darlington.—Additions.—To existing assembly hall at the Grammar school. E. Minors, S.B. Dep. £1 1s.

London.—Installation.—Of heating, etc., at H.M. Treasury, Whitehall, S.W., and County Court, Clerkenwell, N., for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-st., S.W.1. Dep. £1 1s.

Morley.—Adapting.—Present lecture theatre for use as physics laboratory, at Grammar School, for Governors. W. H. Bolam, clerk, Education Dept., Town Hall.

MAY 30.

Boston (Lincs).—Houses.—For the Corporation. B.S. Municipal buildings. Dep. £2 2s

Edinburgh.—Shops.—Three, at High-st., Portobello, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

Glasgow.—Heating.—Heating of Larkfield bus garage extension, for T.C. General Manager, 46, Bath-st.

Grimsby.—Extensions.—To turbine room and switch room at Generating Works, for C.B. S. R. Windle, Borough Electrical Engineer, Electricity Offices, Moss-rd. Dep. £2 2s.

Hull.—Heating.—Low-pressure hot-water heating installation and also domestic hot water supply apparatus for proposed admission hospital at Mental Hospital, Willerby, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

Liskeard.—Alterations.—At Pensilva Branch, for Liskeard and District Co-operative Society. J. B Toms, secretary.

***Slough.**—(a) Public Convenience; (b) Lodge and Tea-room.—For the U.D.C. Engineer and Surveyor, Council Offices, William-st.

Winchester.—132 Houses.—Erection of, at Milland-rd., Bar End, for the Corporation. Town Clerk, Guildhall. Dep. £2 2s.

MAY 31.

Alton.—Alterations.—New hospital block (timber and corrugated iron) and covered way, and alterations to existing buildings, and preparation of site and construction of foundations for same, for Joint Hospital Committee. C. H. Webb, S., Town Hall. Dep. £1 1s.

Bakewell.—Lighting.—Electric lighting wiring to be installed in houses at Beeley (four), Youlgreave (six) and Tideswell (20), for R.D.C. A. Hawes, clerk.

Ballymahon.—Library.—Erection of Dean Egan Free Library at Ballymahon, Co. Longford, for Trustees. V. Kelly, architect, 87, Merrion-sq., South, Dublin. Dep. £3 3s.

***Becontree.** — Headquarters. — The Secretary, Essex Territorial Army Association, Market-rd., Chelmsford. Dep. £2 2s.

Beeston.—Works.—Construction of section of new works at Beeston, Nottingham, for Directors of Boots Pure Drug Co., Ltd. A. Sugden, secretary, Station-st., Nottingham.

Belfast.—Repairs.—To St. Michael's Parish Church, Craven-st.—Hon. Secretary, G. White, 220, Cupar-st.

Cheadle and Gatley.—Houses.—12 on Oak-rd. housing site, Cheadle, and 12 on Woods-lane housing site, Cheadle Hulme, for U.D.C. J. Wrest, E. and S. Dep. £1 1s.

Devon.—Building.—Thornbury, Kingsford farm—alterations and repairs to farmhouse and outbuildings; Thornbury, Woodacott farm—alterations and repairs to 2 cottages; Thornbury, Woodacott farm—alterations and repairs to farm buildings, for C.C. Secretary, 21, Southernhay West, Exeter.

Erpingham.—Painting.—Outside, 44 cottages, for R.D.C. A. R. Tuddenham, St. Peter's-rd., Sheringham.

Llangwm.—Manse.—At Galilee Baptist Church, Llangwm. T. J. Esmond, secretary, Guildford, Llangwm.

Rathmines.—Annexe.—To Technical Institute, for U.D.C. F. G. Hicks, architect, 86, Merrion-sq. South. Dep. £1 1s.

Roughton. — Painting. — Outside, Erpingham, North Walsham and Sheringham Joint Isolation Hospital, for Committee. A. R. Tuddenham, St. Peter's-rd., Sheringham.

Sowerby Bridge.—Renovations.—Internal renovations to District Secondary school, Albert-rd., for Governors. Lewis Rhodes, clerk, Martins Bankchams., Halifax.

Stroud.—Cottages.—16 non-parlour type cottages at Cashes Green, and 8 same type at Brimscombe, for R.D.C. R. Bird, S., Kendrick-st. Dep. £2 2s.

JUNE 2.

Abergavenny.—Houses.—24 non-parlour and 20 parlour type, adoining Bailey-pk., for T.C. Wm. H. Hopwood, T.C.

Bourne.—Houses.—Eight, at Bourne and 4 at Dyke, for U.D.C. J. S. Fisher, S.

Bristol.—Convenience.—At Eastville-pk., for T.C. L. S. McKenzie, City E. and S., 63, Queen-sq. Dep. £2 2s

Halifax.—Painting.—Decorating work in dining hall at Gibbet-st. Institution, for C.B. Borough Engineer, Crossley-st. Dep. £1 1s.

Hollingbourn.—Cottages.—Two pairs, at Wheelar-st., Headcorn; 3 at Maidstone-rd., Headcorn; 3 pairs, South-lane, Sutton Valence; pair at Eyhorne-st., Hollingbourn, for R.D.C. H. M. Apps, building surveyor, 33, Earl-st., Maidstone. Dep. £1 1s.

Horwich.—Building.—Chapel and robing room in Ridgment Cemetery, for U.D.C. T. Green, E. and S., Public Hall. Dep. £2 2s.

Leeds.—Hall.—Congregational Church hall and schoolroom at Stainbeck-rd., Stainbeck, for committee. Dinsley & Moss, architects, 17, Union-st., Chorley. Dep. 10s.

London.—Underground Public Convenience.—For the Holborn B.C. Town Clerk, Town Hall, High Holborn, W.C.1. Dep. £2 2s.

***London.**—Cleansing and Painting.—Various Hospitals, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

***London.**—Cleaning and Repainting.—For the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W. Dep. £1.

Mitford and Launditch.—Cottages.—4 at Swanton Morley; 4 at Mattishall; 4 at Yaxham; 4 at Scarning, for R.D.C. W. J. Barton, clerk. Dep. £1.

Mullingar.—Installation.—Of electric wiring, lamps, etc., at the County Home and Hospital, and at Dispensary, for Westmeath County Board of Health and Public Assistance. J. O'Reilly, engineer, Castletown Geoghegan. Dep. £5.

Redcar.—Houses.—20 parlour, at Dormanstown, for T.C. B.E.

Sheffield. — Painting. — Abbeydale Secondary school; Central Secondary girls' school; Training College; Collegiate Hall; Southbourne; King Edward VII school; Mount View; Pupil Teachers' centre (Arundel-st. annexe); College of Arts and Crafts; for E.C. W. G. Davies, F.R.I.B.A., City Architect. Dep. £1

Romsey.—Houses.—16 pairs non-parlour type cottages in parishes of Lockerley and Braishfield, for R.D.C. C. W. P. Dyson, S., Porters Bridge-st. Dep. £2 2s.

Stanley.—Houses.—42 non-parlour and road works and sewers on site, for U.D.C. S. Dep. £2 2s.

West Suffolk.—Repairs.—Painting and small repairs to following Secondary schools: County school and P.T. centre, Bury St. Edmunds; Newmarket Secondary school; Sudbury Grammar school; Sudbury Girls' Secondary school, and painting and repairs at following Council schools: Clare, Elmswell, Lt. Waldingfield, Mildenhall Beck Row, Newmarket-rd., Polstead, Stanton, Stansfield, Sudbury, Sudbury Technical Institute, for E.C. A. Ainsworth Hunt, County Architect, 51a, Abbeygate-st., Bury St. Edmunds.

Yeovil.—Building.—For (1) New offices for Health Dept.; (2) central heating for Health Dept., offices, and (3) additional cell at refuse destructor, for T.C. A. J. Price, B.S.

JUNE 3.

Portsmouth.—Heating.—In connection with Northern Secondary schools, for E.C. A. J. Sharp, architect, Education Department, Guildhall. Dep. £1 1s.

Weston, Bath. — Telephone Exchange. — For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JUNE 4.

Hull.—Installation.—Accelerated low-pressure hot-water heating, etc., at head post office, for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-st., S.W.1. Dep. £1 1s.

***London.** — Painting and Repairs. — Lionel Barrett, 6, Vere-st., Cavendish-sq., W.1.

JUNE 5.

Bromley.—Houses.—64, on various sites, for the Bromley R.D.C. Clerk, Council Offices, Orpington. Dep. £2 2s.

London.—Installation.—Accelerated low-pressure hot-water heating, etc., at County Court, Clerkenwell, for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Newcastle-upon-Tyne.—Painting.—Repainting externally 1,086 houses, for T.C. Housing Architect, 18, Cloth Market. Dep. £1 1s.

JUNE 6.

Devon.—Improvements.—To Council schools as follows:—Ashwater, internal renovations and repairs; Ashwater: Hunscott, internal and external renovations and repairs; Bampton Infants, internal renovations and repairs; Bradworthy, internal renovations and repairs; Chulmleigh: Week, internal renovations; Colyton (boys, girls and infants), internal and external renovations and repairs; East Worlington, internal renovations to school, external renovations to school and teacher's house; Exmouth infants, external renovations and repairs; Marwoodsleigh and Romansleigh, external renovations; Shaugh Prior, internal renovations and alterations to house, internal and external

renovations and ventilation to school; Walkhampton: Foggintor, alterations to offices and new drainage, new bathroom and internal renovations to teacher's house, and Whitchurch: Horrabridge, internal and external renovations, for C.C. County Architect's Office, 97, Heavitree-rd., Exeter.

Hemel Hempstead.—Extension.—To administrative block at Isolation Hospital, Bennetts End, for Joint Hospital Board. P. W. Prevett, Architect to Board, Bovingdon, Herts. Dep. £1 1s.

★**Plymouth.**—Painting, for H.M.O.W. Contracts Branch, King Charles-street, London, S.W.1. Dep. £1 1s.

Southwold.—Walls.—Concrete walls, together with promenades and other incidental works, for T.C. J. S. Hurst, B.E. Dep. £3.

JUNE 7.

Chesterfield.—Additions.—To following schools: Brushes school, Sheepbridge; Central school, Ashgate-rd., for T.C. Wilcockson & Cutts, architects, 12, Saltergate. Dep. £2 2s.

Leeds.—Painting.—Also cleaning at infectious diseases hospital, Seacroft, and tuberculosis sanatorium, Killingbeck, for T.C. Thos. Thornton, T.C.

Steyning West.—Repairs.—Painting work, repairs, etc., at various housing schemes within parishes of Ashurst, Beeding, Henfield, Lancing, Shermanbury, Sompting, and Steyning, for R.D.C. H. W. Tee, engineer, Union Offices, Ham-rd., Shoreham-by-Sea.

JUNE 9.

Yeovil.—Conveniences.—2 conveniences, 3 shelters, and dressing-rooms at Mudford-rd. recreation ground, and extension to cattle market, for T.C. A. J. Price, B.S.

JUNE 10.

★**Clacton-on-Sea.**—Senior School.—For the Essex C.C. County Architect, Springfield Old Court, Chelmsford. (Dep £2 2s., to F. H. Owers, County Accountant, Duke-st., Chelmsford.)

Hemel Hempstead.—Houses.—For the Corporation. T.C., Town Hall. Dep. £7 7s.

JUNE 11.

★**Birmingham.** — Telephone Exchange. — For H.M.O.W. Contracts Branch, King Charles-street, London, S.W.1. Dep. £1 1s.

Kimmage.—Houses.—Sixty-two, at Kimmage, Co. Dublin, for Irish Sailors' and Soldiers' Land Trust. W. J. Brown, F.R.I.B.A., F.S.I., Architect, Irish Sailors' and Soldiers' Land Trust, 50, Upper Mount-st., Dublin. Dep. £5 5s.

★**Twickenham.**—Houses.—For the Corporation. Town Clerk, Municipal Offices. Dep. £2 2s.

NO DATE.

Benfieldside.—Houses.—62 three-roomed brick houses, for U.D.C. J. J. Eltringham, architect and surveyor, Blackhill.

Clydebank.—Baths.—Public baths in Bruce-st., for T.C. J. W. Johnston, T.C. Dep. £1.

Dromore.—Hall.—Lecture hall at Dromore, Co. Down, for Committee of Banbridge-rd. Presbyterian Church. Hobart & Heron, architects, Scottish Provident-buildings, Belfast. Dep. £2 2s.

Halifax.—Premises.—New "Friendly Inn," Haley Hill. Walsh & Maddock, chartered architects and surveyors, 10, Harrison-rd., Halifax.

Harrogate.—Premises.—For Harrogate Masonic Trust, Ltd. F. Tranmer, A.R.I.B.A., Westminster-chams. Dep. £2 2s.

★**Hull.**—Houses.—310, Marfleet-lane, for Sutton Dwellings Trust. F. J. Horth & H. Andrew, FF.R.I.B.A., architects, Custom House-buildings, Whitefriargate. Dep. £2 2s.

King's Lynn. — Additions. — Alterations and additions to St. James' Club, for King's Lynn and West Norfolk Conservative Co., Ltd. H. T Tilson, L.R.I.B.A., St. Nicholas-st.

Leeds.—Painting.—Hospital for Women and decorating, new concrete floor in scullery, dismantling and erection of sinks, etc., for Committee. S. Cecil Hill, secretary.

Middleton-in-Teesdale.—Premises.—In Chapel-row, for Teesdale Workmen's Industrial and Provident Society, Ltd. J. Clayton, chartered architect and surveyor, High Row-chams., Darlington.

Shrewsbury.—Redecorating.—Thirty-six Council houses in Atcham R.D.C. area, for R.D.C. Hall, Wateridge & Owen, Ltd., Shrewsbury.

Ystalyfera.—Additions.—Also alterations to Pantteg schoolroom, for Committee. C. S. Thomas & H. Jones, FF.R.I.B.A., chartered architects, Salisbury-chams., Wind-st., Swansea. Dep. £2 2s.

MATERIALS, etc.

MAY 26.

Farnworth.—Granite, etc.—For U.D.C. F. Ashton, S.

Mansfield Woodhouse.—Road Materials.—For U.D.C. L. Walker, S.

MAY 27.

Denfleet.—Road Materials.—For U.D.C. S.

Liverpool.—Paving Blocks.—250,000 creosoted wood paving blocks, for T.C. City E.

MAY 30.

Plymouth.—Bitumen.—250 tons of Trinidad Lake bitumen, for T.C. J. Wibberley, City E.

MAY 31.

Manchester.—Lime.—For T.C. J. H. Sillitoe, commercial manager and secretary, Gas Dept.

Preston.—Kerbs.—3,800 yds. straight and 800 yds. radius 6 in. by 12 in. natural stone or concrete bevelled-edge kerbs, for Corporation. W. Pratt, B.E. and S., Birley-st.

Zetland.—Fencing Materials.—For C.C. A. Sutherland, County Clerk, Lerwick.

JUNE 2.

Wombourne.—Road Materials.—For U.D.C. T. Shield, S.

JUNE 18.

Barnes.—Granite Kerbing.—For U.D.C. F. P Riddell, E. and S.

ENGINEERING, IRON AND STEEL

MAY 26.

Chipponham.—Sewage Disposal.—Concrete settlement tank, concrete carriers and 640 lin. yds. of cast-iron sewer at Bowden Hill, Lacock, for R.D.C. Parker Pearson & Ross Hooper, engineers, Dallas-chams. Dep. £3.

East Riding.—Bridge.—Steel bridge and approaches, for G.C. Howard Humphreys & Sons, consulting engineers, 28, Victoria-st., Westminster, S.W.1. Dep. £5 5s.

Elland.—Extensions.—Alterations to tanks and pump well, construction of two percolating filters, and other incidental works, at sewage disposal works, Low Fields, for U.D.C. T. Exley-Fisher, E. Dep. £5.

Harrogate.—Reservoir.—Cooling reservoir, etc., at electricity works, for T.C. C. E. Rivers, B.E. and S.

Hornchurch.—Reconstruction.—Also widening of Ravens Bridge on Hornchurch-Barking-rd., for Essex C.C. W. H. Morgan, C.S., Old Court, Chelmsford. Dep. £2 2s.

Limerick.—Reconstruction.—Of Park bridge, for C.B. W. M. Nolan, T.C. Dep. £5.

Pinxey.—Reconstruction.—Of Pincey Brook bridge on Dunmow-Bishop's Stortford-rd., in parishes of Hatfield Broad Oak and Takeley, for Essex C.C. W. H. Morgan, C.S., Old Court, Chelmsford. Dep. £2 2s.

Renfrew (First or Upper District).—Pipes.—Providing, laying and jointing about 2,200 lin. yds. of 10 in. dia. water pipes from Kilmarnock-rd. to filters at South Moorhouse, together with placing of sluice valves, scour valves and air valves, and all necessary and contingent works, for C.C. Gordon T. Frew, engineer, 227 West George-st., Glasgow. Dep. £1 1s.

MAY 27.

Dundee.—Extensions.—To King George V. wharf, for Harbour Trust. J. Hannay Thompson, General Manager and Engineer, Dundee Harbour Trust, Harbour-chams.

MAY 29.

St. Thomas.—Mains.—4,014 yds. of 4 in. and 3 in. dia. cast-iron mains, with necessary valves, hydrants, etc., also pumping station, machinery and concrete reservoir, etc., at Lympstone, for R.D.C. H. G. Hoskings, E., 6, Queen Anne's Gate, Westminster, S.W.1. Dep. £5.

Southwell.—Sewerage.—Laying of approx. 2,750 yds. of 9 in. and 1,230 yds. of 6 in. stoneware pipe sewers, construction of pumping station, and two additional percolating filters at disposal works at Ollerton and Boughton, for R.D.C. Sands & Walker, consulting engineers, Milton-chams., Nottingham. Dep. £4 4s.

MAY 31.

Bakewell.—Water Supply.—Providing, laying and jointing of about 7,800 lin. yds. of 5 in., 4 in. and 3 in. cast-iron pipes, complete with all necessary valves, hydrants and other fittings, and construction of mass concrete service tank and masonry meter house, and other work incidental thereto, in parishes of Hathersage and Outseats, for R.D.C. Brady & Partington, engineers, Market-st., Chapel-en-le-Frith. Dep. £5.

Coniston.—Reconstruction.—Also widening of Adam Bridge, Coniston, on Torver and Coniston rd., for Lancashire C.C. County Surveyor and Bridgemaster, County Offices, Preston.

Warton.—Widening.—Of Brook Bridge, Warton, on the Preston and Lytham St. Annes-rd., for Lancashire C.C. County Surveyor and Bridgemaster, County Offices, Preston.

JUNE 1.

Benha (Egypt).—Bridge.—Steel bridge, and demolition of existing bridge, over Nile, for Ministry of Communications., Administration of Bridges and Roads. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 9222.)

JUNE 2.

Hitchin.—Supply.—Providing and laying about 1,000 yds. 6 in., 2,190 yds. 4 in., 1,762 yds. 3 in., 490 yds. 2 in., 226 yds. 1 in., 966 yds. ¾ in. cast-iron and galvanised pipes with all fittings; engine and pump; the construction of concrete reservoir, at Pirton, for R.D.C. A. E. Passingham, 5, Bancroft. Dep. £2 2s.

JUNE 3.

Aberdeen.—Extension.—Of wharf at Commercial Quay, for Harbour Commissioners. R. Gordon Nicol, engineer, Harbour Engineer's Office, Aberdeen. Dep. £3 3s.

JUNE 4.

Oxford.—Reservoir.—Covered concrete service reservoir and two lengths of pipeline, for T.C. A. Holt, T.C. Dep. £10.

Windlesham.—Sewerage.—6,300 yds. of 7 in. cast-iron rising main and 3,700 yds. of 12 in., 9 in. and 6 in. cast-iron and stoneware pipe sewers, together with pumping station and other incidental works, for U.D.C. Willcox & Raikes, engineers, 33, Great Charles-st., Birmingham. Dep. £5 5s.

JUNE 5.

Truro.—Sewerage.—Provision and laying of about 3½ miles of stoneware concrete and cast-iron pipe sewers, and construction of manholes, flushing tanks, and execution of other contingent works, for T.C. F. A. Barnes, City E. and S. Dep. £5.

JUNE 19.

Johannesburg.—Steelwork.—Structural steelwork, etc., for new erecting and wheel shop, Pretoria, for South African Railways and Harbours Administration. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Reference No. A.X. 9605.)

AUGUST 17.

Egypt.—Building.—Ministry of Public Works, for 15 electric pumping stations, etc., for Government. Chief Inspecting Engineer, Egyptian Government, 41, Tothill-street, S.W.1. Charge £10 5s.

ROAD, SEWERAGE, AND WATER WORKS

MAY 26.

Bromley.—Making-up.—Orchard-place, Walters yd., Fasbeda-rd., Litchetti-rd., and Minster-rd. (part), for T.C. B.E. Dep. £1.

Doncaster.—Widening.—Of Thorne-rd. from Wentworth-rd. to Chestnut-av., for C.B. F. Oscar Kirby, B.E., 2 Priory-place. Dep. £5 5s.

Dunmow.—Footpath.—At Dunmow Ford bridge on Dunmow-Braintree-rd., Great Dunmow, for Essex C.C. W. H. Morgan, C.S., Old Court, Chelmsford. Dep. £2 2s.

Harrogate.—Flags.—Laying of concrete flags to house footpaths on housing estates, for T.C. C. E. Rivers, B.E. and S

Ilford.—Reconstruction.—Of Bennetts Castle-lane, for T.C. L. E. J. Reynolds, B.E. Dep. £2 2s.

London.—Roads.—Provision, laying and maintenance complete of asphalt carpeting in Brindley-st., Crompton-st., Lancaster-st., and Lancaster-gate (part length) for Paddington B.C. B.E. Dep. £1 1s.

London.—Paving.—Renewal with creosoted deal blocks of existing wood pavings, and works to foundations, in Edgware-rd., from Praed-st. to Tube station; Seymour-st.; Hyde Park-gardens; intersection of Harrow, Walterton and Fernhead-rds., and Elgin av.; and similarly for laying creosoted deal blocks in South Wharf-rd. (part length), for Paddington B.C. B.E. Dep. £1 1s. each.

Manchester.—Paving.—Of Sherborne-st., Cheetham, from Allison-st., for distance of 115 yds. in a northerly direction, and repaving (granite setts) Deansgate (west side), from St. John-st. to Liverpool-rd., for T.C. F. E. Warbreck Howell, T.C. Dep. £1 1s.

Newton-le-Makerfield.—Pipes.—3,229 lin. yds. cast-iron pipes for water and gas mains, also for sluice valves, for U.D.C. R. T. Surtees, E. and Manager, New Gas Works, Earlestown.

St. Teath.—Mains.—3,500 yds. of 3 in. cast-iron mains, with valves, hydrants and incidentals, in the parish of St. Teath, for North Cornwall Joint Water Board. Lemon & Blizard, consulting engineers, 24, Lockyer-st., Plymouth. Dep. £3 3s.

Shipley.—Pipes.—15,920 lin. yds. of cast-iron pipes, for U.D.C. H. Dawson, E. and S.

Sunderland. — Sewer. — Reconstruction of Gill Sewer; 184 lin. yds. of 75 in. dia. brick sewer in tunnel, 18 ft. to 26 ft. deep; 66 lin. yds. of 75 in. dia. brick sewer in trench 14 ft. to 18 ft. deep; and 632 lin. yds. regrading and constructing new invert in existing water-course, for C.B. B.E. Dep. £5 5s.

Withernsea.—Extension.—To sewer outfall on Beach, for U.D.C. S.

MAY 27.

Barnet.—Road.—Roads and sewers, for Wellhouse estate housing scheme, for U.D.C. S.

Cairo.—Mains.—Laying, jointing and testing of 14,530 metres of cast-iron spigot and socket pipes from 3 in. to 20 in. dia., together with specials and valves, for Ministry of Public Works. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X 9292.)

Grays Thurrock.—Drain.—Laying about 640 yds. of 9 in. sewer and 9 in. surface water drain, together with manholes and stoneware gullies in Windsor-av., Grays, also laying a 9 in. surface water drain and making-up private street, Parker-rd., Grays, for length of 200 yds., for U.D.C. H. S. Goodall, E. and S. Dep. £2 2s.

Herne Bay.—Sewers.—Laying of surface water sewers in Pier-av. and Western-av., comprising approximately 54 in. yds. 12 in. cast-iron pipes as outfall, 340 yds. 15 in. concrete tubes, 57 yds. 12 in. concrete tubes, 200 yds. 9 in. stoneware pipes, and 400 yds. 6 in. stoneware pipes, together with 15 manholes and other consequent work, for U.D.C. B. J. Wormleighton, E. and S. Dep. £1 1s.

Willesden.—Paving.—Artificial flag paving provided and laid, approximately 30,000 to 40,000 yds.; asphalt surfacing supplied and laid, 20,000 yds. approximately, 10,000 ft. relay kerb, and wood paving supplied and laid, 6,196 yds. approximately, including concrete foundation, for U.D.C. F. Wilkinson, E.

MAY 28.

Brentford and Chiswick.—Reconstruction.—In asphalt on reinforced concrete of portion of carriageway in Ealing-rd., Brentford, for U.D.C. E. Willis, E. and S.

Brigg.—Main.—New water main to Mill-lane housing site, for U.D.C. J. R. Oxenham, Surveyor and Water Engineer. Dep. 10s. 6d.

Edinburgh.—Macadam.—Goff-av., from Portobello-rd. northwards to 1 and 2, and Willowbrae-av., from 37 southwards to 70 and 75, for T.C. City Road Surveyor.

Merton and Morden.—Making-up.—Making-up and widening part of Grand-drive, approximately 890 yds. in length; private street works in Circle-gardens; new road, approximate length 570 yds. (Cannon Hill-lane extension); construction of sewers, Florence-av., Morden, and surface water sewers, Central-rd., Morden, for U.D.C. G. Jerram, E. and S. Dep. £1 each.

Westmorland.—Widening.—Widening and improving Kendal-Levens-rd., for C.C. C. E. Hines, County Surveyor and Bridgemaster, 12, Lowther-st., Kendal. Dep. £10.

MAY 29.

Ealing.—Extension.—Laying of new rising main and extension to outfall works and pumping station, for T.C. W. R. Hicks, B.E. Dep. £1.

Manchester.—Draining.—Sewering, draining, paving with tarmacadam and concrete, flagging, artificial, etc., roads and footpaths, 61, 61a, 65 to 75, 77, 78, 79, and 81 on the West Didsbury housing estate, for Corporation. City E. Dep. £1 1s.

Stretford.—Paving.—Various Roads, etc., for U.D.C. B. Parker, S. Dep. £2 2s.

MAY 30.

Crompton.—Tar-painting.—On certain roads within district, an area of approx. 31,000 sq. yds., for U.D.C. F. T. Jones, E. and S.

Winchester.—Roads and Sewers.—Construction of, for the Corporation. Town Clerk, Guildhall. Dep. £1 1s.

MAY 31.

Cheadle and Gatley.—Tarspraying.—Of various roads withing the district, approx. area 150,000 super yds., for U.D.C. J. Wrest, E. and S.

Glasgow.—Road.—Section A-B, Glasgow to Baillieston; section B-C, Baillieston to Newhouse; section C-D East, Harthill to Polkemmet; section B-E, Polkemmet to Starlaw, for T.C. D. A. Donald, E., 271, Alexandra-parade, Glasgow. Dep. £10 10s. each.

Thames Ditton.—Sewer.—Relaying of 85 yds. run of 9 in. sewer in cast-iron pipes in Summer-rd., Thames Ditton, near railway level crossing, for U.D.C. S.

Wirral.—Extensions.—130 yds. (1 in.), 9 in. sewer, Moreton-rd., Upton; 849 yds (1 in.) 9 in. and 7 in. sewer, Saughall Massie; complete with manholes, for R.D.C. W. Webb Shennan, E. Dep. £1 1s.

JUNE 2.

***Ealing, W.5.**—Roads.—Making-up of, for the Town Council. Town Clerk, Town Hall.

Otley.—Making-up.—Of Cambridge-st., back Albion-st., back Almscliffe-ter., and back Guycrofts, north and south, for U.D.C. C. F. Hodgson, S. Dep. £1 1s.

Southwell.—Water Supply.—In parishes of Southwell, Halloughton, and Thurgarton, for R.D.C. Sands & Walker, consulting engineers, Miltonchams., Nottingham. Dep. £3 3s.

Stockton-on-Tees.—Improvements.—To Talbot-st. and Oakwell-st., Norton, for T.C. B.E.

Swindon.—Sewerage Works.—In Rodbourne Cheney, for T.C. J. B. L. Thompson, B.S. Dep. £10 10s.

JUNE 3.

Devizes.—Granite.—Supplying and laying about 600 sq. yds. of bituminous bound granite, for T.C. A. W. Jakeway, B.S.

JUNE 4.

Birmingham.—Reconstruction.—Of footways in Midland-rd., Cotteridge, including concrete flag paving, new footway crossings and new pennant kerbs, for T.C. H. H. Humphries, City E. and S. Dep. £2.

Hove.—Sewerage.—80 yds. of 48 in. dia. cast-iron surface water outfall to low tide; 47 yds. of 48 in. dia. cast-iron inverted syphon; 277 yds. of 48 in. concrete tube, for T.C. T. R. Humble, B.S. Dep. £2 2s.

Hove.—Making-up.—Roadway, relaying kerbing and channelling, laying new paving, and other works in connection therewith in Princes-sq., for T.C. T. R. Humble, B.S.

JUNE 11.

Birmingham.—Sewers.—5,000 yds. of brick and concrete stoneware pipe and concrete tube sewers and culverts and incidental works in private lands, Goosemoor-lane, Gravelly-lane, South-grove, Courtlane and Short Heath-rd., Erdington, for T.C. H. H. Humphries, City E. and S. Dep. £2.

NO DATE.

Eastbourne.—Making-up.—Summerdown-rd., for Chatsworth Estates Co. C. Allix, F.L.A.S., Agent Compton Estate Office, Eastbourne.

Hull.—Sewers.—Approx. 1,500 lin. yds. of street works, roads and sewers, in connection with housing scheme, Marfleet-lane, for Sutton Dwellings Trust. F. J. Horth & H. Andrew, FF.R.I.B.A., architects, Custom House-buildings, Whitefriargate Dep. £2 2s.

Kidwelly.—Tar-spraying.—Also gritting of roads, for T.C. Basil G. Jones, E. and S.

Auction Sales, Tenders, etc.

MAY 29.

***Ascot.**—Vervard & Yates will sell, on the premises, "Broadlands," fittings, building material, etc. Auctioneers, 373, Norwood-rd., S.E.7.

MAY 29 and 30.

Knutsford.—Hall, Pain & Foster will sell, at H.M. Prison, valuable building and other materials. Auctioneers, 48, West-st., Fareham.

JUNE 3, 4 and 5.

Exmouth.—"Marley," Withycombe Raleigh. C. C. Cadle, F.N.A.A., will sell, on premises, fixtures and fittings prior to demolition. Auctioneer, Central-chams., 12, St. Margaret's-st. Canterbury.

Public Appointments

MAY 26.

Oldham.—Junior Surveying Assistant, Borough Engineer and Surveyor, Town Hall.

Oldham. — Chief Town Planning Assistant (Temporary). Borough Engineer and Surveyor, Town Hall.

MAY 29.

Burton-on-Trent.—Clerk of Works required by the Corporation. Borough Engineer and Surveior, Town Hall.

***Yeovil.**—Assistant required by the Corporation. Borough Surveyor, Municipal Offices.

MAY 31.

Birmingham.—Assistant Master of Architecture. Chief Education Officer, Education Office, Margaret-street.

JUNE 5.

***Northallerton.**—Clerk of Works.—Secretary, Education Committee, County Hall.

NO DATE

***Stafford.**—Draughtsmen (Temporary). Director of Education, County Education Offices.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education, M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

Ashton-under-Lyne.—Completed plans been submitted to B. of E. for school for boys in Queen's-rd., Hurst. Architect, Percy Howard, A.R.I.B.A., 88, Mosley-st., Manchester.

Askern.—R.D.C. being urged by P.C. to erect houses at Moss-rd.

Bakewell.—Proprietors, Sketchley Dye Works, acquired Amber Dye Works, Bull Bridge, where they propose to make alterations.

Ballycastle.—U.D.C. decided to contribute £1,000 towards cost of proposed extension to harbour.

Barnsley.—T.C. received sanction to loan of £43,088 from Electricity Commissioners regarding land on which Doncaster-road sub-station to be erected.—Plans approved for 100 three-bedroom houses and 50 two-bedroom houses on Burton Grange estate.

Barnsley.—J. Wilkinson, architect, Regent-st., preparing plans for Methodist Church and School at Silkstone Common, near Barnsley, for Trustees.

Barnsley.—J. Wilkinson, L.R.I.B.A., architect, 15, Regent-st., prepared plans, Methodist church and schools, on site on Silkstone Common.

Barnsley.—C. F. Moxon, Regent-st., architect for printing works at Wombwell.

Barrow-in-Furness.—B.E. approved plans for alterations and additions to schools in Walney Island, Salthouse and Hawcoat areas, at £12,030.

Batley.—B.E. submitted plan and estimate for erection at town's yard of garage to accommodate several mechanical vehicles, heavy plant, etc., of Corporation. It was agreed that application be made to M.H. for sanction to borrow £1,600 for proposed garage.

Batley.—Sunday School on land adjoining St. Andrew's Church, Purlwell, by Parochial Council. Cost £3,000. Plans by C. W. Shaw, architect.

Batley.—T.C. propose garage at Town's Yard, at £1,600.

Beaconsfield.—Church Council to erect new schools on allotment ground behind Burke's Cottage, at £6,000. Plans by Burgess, Holden & Watson, architects.

Bedworth.—Scheme being prepared for pavilion in Miners' Welfare Park.

Berkhamsted.—R.D.C. received M.H. approval for 4 houses in rural district and 16 houses in Northchurch.—Council instructed S. to prepare plans for 10 houses, or as many as could be built on one side of available site.—Plans were approved: alterations and additions, "Anchor" public-house, Bourne End, for Benskins Brewery, Ltd.

Birkenhead.—Birkenhead Brewery Co. had plans passed by T.C. for alterations and additions to premises at corner of Prenton-rd. West with Borough-rd.

Birkenhead.—Rev. Father Cavanagh, 133, Gantley-rd., proposing Catholic elementary school in Challis-av.

Birmingham.—Proposals for rebuilding Messrs. Lewis's premises fronting Bull-st., the Minories, Old-sq. and Upper Priory, formerly occupied by Newbury's, Ltd., to be considered by T.C.

Birmingham.—H. W. Simister, L.R.I.B.A., Norwich Union-chams., Congreve-st., architect for factory between 221 and 235, Alexander-rd., off Haycock's Green.

Birmingham.—Provision of further flats under consideration.

Blackburn.—H. S. Fairhurst, 55, Brown-st., Manchester, architect for machine shop and garage in Mary Ellen-st., for Lloyds Packing Warehouses, Ltd.

Blackburn.—H. S. Fairhurst, F.R.I.B.A., architect, 48, Brown-st., Manchester, prepared plans for garage for Lloyds Warehouse, Ltd., in Mary Ellen-st.

Blackburn.—Members, St. Gabriel's Church, proposing church building.

Blackpool.—Plans approved for bank, Lytham-rd., for Union Bank of Manchester, Ltd. Architect, H. Wade, 2, Birley-st.—Members, Cleveleys Wesleyan Church raising funds for edifice. Members, Cleveleys Baptist Fellowship to acquire site for church.

Blackpool.—R. B. Mather, Sons & Wilding, architects, Birley-st., preparing plans for bakehouse, Waterloo-rd., for Whalley, Ltd.

Blackpool.—C.B. approved position for conveniences at Layton.

Bolton.—T.C. approved: J. Shuttleworth, alteration, 110, Bury Old-rd.; Electricity Committee, transformer sub-station, Back Green-lane; W. Reddyhough, 4 houses, Plodder-lane; Ernest Howarth, 6 houses, Duchy-av.; J. E. Pailon, 9 houses, Bromwich-st.; A. H. Price & Groves, 6 houses, Sharples-av.

Bolton.—Bradshaw Gass & Hope, FF.R.I.B.A., 19, Silverwell-st., architects for church in Halliwell-rd., for Trustees. Minister, Rev. E. G. Lee.—B.E. to prepare lay-out plans for 500 houses at Hall I' th' Wood, for T.C.

Bournemouth.—T.C. approved; additions, South Western Hotel, Northcote-rd., Eldridge, Pope & Co., Ltd.; rebuilding north block (corner), Hinton-rd. and Old Christchurch-rd., Beale's, Ltd.; alterations, 609-613, Christchurch-rd., F. W. Woolworth & Co.; 88 houses, Castle Park estate, Castle-lane, J. M. Leyland; business premises, Plot 1, Westover-rd., S. B. Parsons; revised block plan, flats, Manor-rd., T. J. Rowley; 22 houses, Claremont-av., S. G. Ward; Baptist church, Cardigan-rd., The Trustees; 4 houses, The Avenue, Redhill-park, H. Masters; roller-skating rink, Wycliffe-rd., J. M. Blackwell; alteration, "Priory Lodge," Alumhurst-rd., the Crippled Children's Home.

Bradford.—Green Hill Wesleyans propose extensions Sunday school, at £1,490. Morley & Son, architects, Swan-arcade.

Buxton.—Whaley Bridge and Buxton Co-operative Society, Ltd., proposing shop and store at Harpur Hill. C. Flint, L.R.I.B.A., architect and surveyor, 5, The Quadrant.—Members, Fairfield Parish Church (Vicar, Rev. H. S. Williams), propose parochial hall, at £3,000.

Cainc.—Factory premises, for C. & T. Harris (Calne), Ltd., of Church-st.

Cambridge.—T.C. approved: alterations, Parker-st., Master, Fellows and Scholars of Emmanuel College, St. Andrew's-st.; 40 houses, Histon-rd., Corporation; lock-up garages, North-place, Skinner & Waldock, 29, Magdalene-st.; alterations and additions, 53, Mill-rd., Barclays Bank, Ltd., H. R. Robinson (manager), Bene't-st.; 5 pairs of semi-detached houses, Sedgwick-st., Crown & Cox, Tennis Court-ter.; 4 pairs of semi-detached houses, King's Hedges-rd., Charles Lovell Naylor, 304, Milton-rd.

Campsall.—Parish Church tower to be reconstructed and certain other building improvements effected at £500.

Carlisle.—Foden, Hemm & Williams, architects, 199, Deansgate, Manchester, prepairng plans for combined school and presbytery at Warwick Bridge for Rev. J. S. Coly.

Carlisle.—T.C. propose £5,000 for transformers and sub-stations.

Chathill (Preston).—Additions, St. Andrew's Mission, for P.C. Plans by W. Stockdale, A.R.I.B.A., architect, 81, Howard-st., North Shields.

Chorley.—Plans submitted by trustees of Chorley Hospital for hospital at Rookwood Hall, Prestonrd., been approved by T.C. Architects, Bradshaw Gass & Hope, FF.R.I.B.A., 19, Silverwell-st., Bolton. Cost £50,000.

Crook.—Council to proceed with whole Town Hall scheme at £17,000.

Crosshills (Yorks).—J. Hartley & Son, Swadford-chams., Skipton, architects for church in Station-rd., near Keighley, for Trustees of P.M. Church.

Coventry.—Members Warwick-rd. Congregational Church propose schools and institute.

Doncaster.—E.C. propose improvements to Wheatley Girls' school, comprising 3 classrooms, at £3,000.—Tenders to be invited for houses off Wheatley-lane.

Dunstable.—Corporation propose 100 houses. T. Alwyn Lloyd, F.R.I.B.A., 6, Cathedral-rd., Cardiff.

Ealing.—T.C. approved: Eastcote-av. (31-81 odd), 26 houses, for R. Lancaster & Sons, 125, High-rd., Wembley; Cawdor-cres. (60-74 even), 8 houses, G. Taylor (architect: H. S. Steel, 289, Northfield-av., Ealing) The Grove (3 and 5), shops and flat, for—, Langley (architect: S. H. West, 40, The Broadway, W.5); Claremont-rd. (1-39 odd), 20 houses, Brutonway (9-35 odd) (6-32 even), 28 houses, Fouse-way (5-31 odd) (2-32 even), 30 houses, Vallis-way (25 and 27), 2 houses, for G. Wimpey & Co., Ltd., The Grove, Hammersmith, W.6; Wood End-lane, 26 houses, Arohead, Ltd. (architect: W. R. Davidge, 5, Victoria-st. S.W.1); Greenford-rd., 12 houses, Oldfield-lane, 30 houses, F. H. Shearley, Meadow estate, Greenford-rd., Greenford Green; Walmer-gardens, tennis pavilion, A. Jackman, 190, Boston-rd., Hanwell, W.7; The Broadway, Hanwell, sub-station and alterations to office at 3, for Metropolitan Electric Supply Co., Ltd., 16, Stratford-place, W.1; Humes-av., transformer chamber, for Metropolitan Electric Supply Co., Ltd.; South Ealing-rd., alterations at 42, for P. Essling & Sons (builder: S. Leonard, 186, Leighton-rd., N.W.5).

East Barnet.—Geo. Withers, F.R.I.B.A., 90, Cannon-st., E.C.4, architect for church hall at junction of Cat-hill and Church-rd.

East Preston.—R.D.C. approved: 5 shops with dwelling house over each and bungalow in Wendy Ridge, Rustington, for J. P. Plumb; 9 bungalows, an hotel and 6 shops and garages on Station estate, Rustington, for J. P. Plumb; 5 shops, with dwellings over, Sea-rd., Rustington, for A. Colquhoun's executors.

Finedon.—A. E. Lloyd, S. to U.D.C., instructed to prepare plans for fire-station, conveniences, etc.

Golborne.—Plans approved for extension Central Council school.

Great Malvern.—Worcs. C.C. Licensing Justices approved alterations to "County Hotel," at £50,000, for the Honywood Hotels, Ltd.

Great Preston.—Kippax E.C. propose Council school. Plans approved by B.E.

Guiseley.—Chippendale & Sunderland, Springfield, architects for buildings at Birks.

*See also our List of Contracts, Competitions, etc.

Hampshire.—C.C. approved: £3,126 additions to Basingstoke Brook-st. school; £22,750, new senior school at Christchurch; £12,730, junior mixed school at Eastleigh; and £1,700, new police station and court at Whitehill.

Hastings.—T.C. approved: 10 houses, Bexhill-rd., St. Leonards, A. Honnor, owner, per Ward, Son & Wray, architects; additions, Furze Croft, Filsham-rd., St. Leonards, R. H. Ling, owner, per Ward, Son & Wray, architects; 2 pairs houses, Downs-rd., Hastings, J. Lester & Son, owners.

Hawick.—F. W. Woolworth & Co., Ltd., Kingsway, W.C.2, to erect premises at High-st., Hawick. Plans by W. Priddle, architect.

Heywood (Lancs).—T.C. to erect 60 houses, Peel-lane site.—E.C. propose alterations and additions Bamford-rd. and Regent-st. Council schools, at £12,000.

Houghton-le-Springs.—U.D.C. received M.H. sanction to 64 houses at Colliery-row.

Hove.—T.C. approved: Denman & Son, Sussex Property & Building Co., Ltd., 24 houses and garages, Old Shoreham-rd. and Cranmer-av.; G. W. Warr, for F. Walker, 52 houses, Cranmer-av.

Hull.—L.N.E.R. proceeding with reconstruction of buildings on 2, Fish Quay at St. Andrew's Dock extension.

Kendal.—Plans prepared for erection banking premises, for Yorkshire Penny Bank, Ltd. Site in Stricklandgate. Tenders being invited.

Kettering.—R.D.C. adopted scheme for 12 houses at Corby. H. J. Parker, S.

Kidderminster.—Carpet Trades, Ltd., Mill-st., prepared plans, which have been approved by T.C., for extensions to Mill-st.

Kidderminster.—Pritchard & Godwin, F.R.I.B.A., Bank-building, preparing plans for Council senior school for E.C.

Kingston.—Trustees of the Primitive Methodist Connection contemplate church in Cheam Common-rd., Worcester Park. H. Kelsall Armitage, architect, 130, Haverstock-hill, Belsize-park, N.W.3. Quantities by T. Sumner Smith, chartered quantity surveyor, Clifton Lodge, The Crescent, Victoria-park, Manchester.

Lancaster.—Lancaster and District Co-operative Society, Ltd., 51, Church-st., acquired site, Slyne-rd., Skerton, for branch premises.

Leicester.—A. F. Bryan, A.R.I.B.A., St. Martin's-chams., 8, New-st., preparing plans for church, parish of St. Anne's (Western Park). Vicar, Rev. M. H. Harland.

Leicester.—E.C. have approved junior school in Coleman-rd., at £11,181, an infants' school, Hamelin-rd., Braunstone estate, at £11,540.

Liverpool.—Plans passed: Ice skating rink, Green-lane, West Derby, T. Price & Sons, for R. D. French; 28 houses, Woodsorrel-rd., Wavertree, R. Owens & Son, for J. Hughes; 4 houses and shops, and 5 lock-up shops, Northfield-rd., Brown & Saunders, for Hutchinson & White; alterations to "Exchange-buildings," Chapel-st., Wm. P. Horsburgh, for Liverpool Exchange Co.; 4 houses, Zig-Zag-rd., E. Russell-Taylor & Son, for R. Brandreth; alterations, 18, Lord-st., Holt & Glover, for Clay & Abraham; 10 houses with garages, The Vineries, Harold C. Davies, for Pierce Williams & Son; 12 houses, Pinfold-rd., O. Williams & Sutcliffe, for Hunts Cross Building Co.; 12 houses with garages, Arranmore-rd., Mossley Hill, R. Owens & Son, for W. J. Williams; alterations to 5-7, Great Charlotte-st., H. E. Davies & Son, for E. L. Meystre; 14 houses, Yew Tree-lane, and 38 houses off Yew Tree-lane, L. G. G. Pritchard, for H. Kenton; 32 houses, Corndale-rd., 46 houses, Boxdale-rd., 24 houses, Gorsdale-rd., W. T. Clarke, for Thos. Percy, Ltd.; new cinema, Lime-st. corner Elliot-st., Wm. R. Glenn & A. E. Shennan, for Associated British Cinemas, Ltd.; Golf Club house, Yew Tree-lane, West Derby, H. G. Rowlands & Kenmuir Kinna, for the West Derby Golf Club; 42 tenements, Burlington-st., 3 tenements, Titchfield-st., 9 tenements, Limekiln-lane, 15 tenements, Bond-st., 4 houses, Woolton-rd., Walter Lothian; 21 tenements, Great Richmond-st. and St. Anne-st., Corporation; extension of premises, Dundee-st. and Neptune-st., John Collins, for J. Bibby & Sons, Ltd.; Shippon, "The Uplands," Queen's-drive, West Derby, Corporation; 4 houses and lock-up shop, Church-rd. West, Wm. Unsworth, for H. Cowgill.

London (Eltham).—L.C.C. recommend £406,000 in respect of construction of Eltham by-pass rd., so as to include cost of accommodation works in connection with widening of West-park section of that road.

London (Hampstead).—L.C.C. recommend £118,450 in respect of substitution of permanent buildings for hut wards and provision of additional isolation accommodation at North Western fever hospital, Lown-rd., Hampstead.

Loughborough.—T.C. approved: extensions to Rokeby House, Burton-st., Governors, Loughborough Endowed Schools; 8 almshouses, York-rd., Trustees of Frosts Charity; extensions to offices, Woodgate, Wilfred Moss & Son; 10 houses, Leicester-rd., H. W. Moult.

Malton.—New assembly hall. Architects, Cannon & Son. Quantities by Thos. Priestley & Son, Oxford-place, Leeds.

Manchester.—Additions to premises of M. Fletcher & Sons, Moss-lane, Whitefield. Plans by A. Clayton, L.R.I.B.A., architect, Duchy-chams., 4, Clarence-st.

Manchester.—Baths Committee propose washhouses at £133,500. Plans will be prepared by City Architect, H. Price, A.R.I.B.A.

Manchester.—Baylem's, Ltd., propose alterations 139 and 140, Ashton New-rd. Architects, Thorpe & Collier, L.L.R.I.B.A., 66, Deansgate, Manchester.

Manchester.—Church school in parish of St. Ambros, Barlow Moor-rd., Chorlton-cum-Hardy. Architect, H. Greenhalgh, 18, Mawdsley-st. Bolton.

Marsh.—British Ropes, Ltd., Wakefield, propose wire cleaning shed, Queen-st. Plans by D. Marshall, Phoenix-cottage, Cleckheaton.

Matlock.—T.C. propose 20 houses.

Methley.—B. J. Parrott & Co. propose additional houses at Saville-rd. Plans approved by U.D.C.

Middlesbrough.—T.C. approved: extension of club premises, Southfield-rd., corner of Wilton-st., for R.A.O.B. Institute, Southfield-rd.; alterations and additions, "Exchange Inn," Richardson-st., Wm. Younger, Ltd.; 6 houses, Westbourne-rd., T. Duncanson; 3 pairs of houses, Acklam-rd., and 1 pair of houses, Appleton-rd., A. Vinter; 4 pairs semi-detached houses, Longford-st., G. Pattison.

Middleton.—Gibb & Place to erect houses off Town-st. Shelter to be erected by Tramways Committee in Town-st., rear the "Middleton Arms," Leeds.

Mirfield.—Site been acquired for vicarage for parish church (vicar, Rev. T. Marsden).

Morley.—Alterations at Wesleyan chapel, at £1,193. Tenders to be invited.

Newark.—Managers Church Schools propose alterations at school, at £1,000.

Newchurch.—Lancashire E.C. propose central school at Lyons' Den, at £21,636. Plans by County Architect, S. Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

Nottingham.—P. Morley Horder, 5, Arlington-st., St. James's, S.W.1, architect for reconstructing Lenton Hall, for senate of University College, University-pk.

Nunsaton.—E.C. received final approval of plans for Coton (Avenue-rd.) Senior Council school.

Oldham.—Extensions, Crompton Hall Secondary school, for Church of England Authorities. F. Thorpe, F.R.I.B.A., architect, Union Bank-chams., Church-lane.

Ossett.—J. Illingworth to erect 42 terrace-type houses in Spa-st. Plans approved.

Oxford.—T.C. sold site in Cinnamints-rd. to F. W. Haines, of 18, Albion-st., Chipping Norton, for house and shop.

Pateley Bridge.—Wesleyan church at Kettlesing, at £2,500.

Pontefract.—Plans prepared for school at Willow-pk. Tenders to be invited.

Pontefract.—Hustler & Taylor, Ropergate, architects for club house, Golf Links, for Pontefract, Castleford and District Golf Club.

Portishead.—Concert hall is proposed as memorial to late F. E. Weatherly, K.C.

Portsmouth.—T.C. approved: McCarthy Bros., 6 houses, Stride-av.; Geo. Peters, Ltd., alterations, "Blue Anchor" p.h., Kingston-cross; Portsmouth Electricity Dept., sub-station, 127-129, London-rd.; British Home Stores, Ltd., business premises, 207-211, Commercial-rd.; Governors of Royal Portsmouth Hospital, extensions, Royal Portsmouth Hospital; Humphries, Ltd., for Portsmouth United Services Rugby Football Club, grand stand, Park-rd.; S. Brittain, 42 houses, Green-lane, Hilsea; McCarthy Bros., 23 garages, Langstone-rd.; H. G. Hellyer & Son, for J. J. Young & Son, Ltd., alterations, "Baker's Arms" b.h., Wiltshire-st.; J. J. Canterbury, 7 houses and garages, Torrington-rd.; Dye Bros., 19 garages, Torrington-rd.

SLIDING DOOR GEAR

'Phone HOP 4107 — British Made. — 'Phone HOP 4108

MECHANICAL PERFECTION

COBURN SYSTEM

Latest Catalogue on Request.

THE BRITISH TROLLEY TRACK CO., LTD.
Orange Street, S.E.1.

Agents Everywhere.

Preston.—R.D.C. making application to M.H. for £10,000 for Council offices in Guildhall-st.—Proprietors, Royal Hippodrome, proposing alterations building.—Members, Church of Sacred Heart, and to convert existing edifice into new schools.

Retford.—T.C. approved: Ordsall Parochial Church Council, extensions to St. Alban's Church; Shell-Mex, Ltd., alterations to premises, and new petrol pump, London-rd.

Ripon.—Sunday school adjacent to chapel, for the Wesleyan Trustees, at £2,000. Tenders to be invited.

Rochdale.—Rochdale Provident Co-operative Society, Ltd., Lord-st., proposing extensions to central premises. Plans by H. H. Clough, L.R.I.B.A., architect, Newgate-chams

Rotherham.—Transformer chamber at new Technical College.—B.E. to prepare plans for public elementary school at Herringthorpe-st. Plans by B.E. been approved for erection central school at Park-st., at £14,500.

Rotherham.—B.E. submitted revised plans for proposed new central school at Park-st., incorporating provision of swimming bath at additional estimated cost of £14,500.

Rotherham.—B.E. to prepare plans for 32 flats at Herringthorpe.—Alterations at offices in Rawmarsh-rd., for Electricity Committee, at £2,000.

Rugby.—Willard & Son, Market-place, are the architects for alterations factory premises, Little Church-st.

Salford.—B.E. to prepare plans for slipper baths and washhouses in Clarence-st.

Sheffield.—T.C. approved: 4 houses and garages, Gisborne-rd., Wm. Malthouse, Ltd.; 3 houses, Dalewood-av. and Folds-lane, Bingham & Worthington; 6 houses and garages, Haugh-lane, G. M. Taylor; 2 houses and 6 garages, Garry & Upwood-rds., M. Simpson; 226 houses, Corporation; 4 houses and garages, Haugh-lane, G. M. Taylor; 6 houses and garages, Halesworth-rd., J. E. Cambe; house, Queen Mary-rd. at Stand House school, for E.C.; school and house, Crowder-av., Southey Green, for E.C.

Sheffield.—Brightside & Carbrook Co-operative Society to erect branch premises on Hacklow-rd. site.—Sheffield and Ecclesall Co-operative Society, Ltd., to erect branch premises, Hutcliffe-rd.

Sheffield.—Members of Totley Rise Wesleyan Church raising funds for Sunday school, to cost £2,000.

Shipley.—U.D.C. approved: 10 houses, Aireville-grange, and house, Aireville-av., for J. Chippindale.

Shrewsbury.—Licence of "Bricklayer's Arms" public-house, Copthorne, is to be removed to new house on site at junction of Copthorne and Hafren-rd. for Worthington, Ltd., Brewers, Burton-on-Trent. Plans by Fowler, Sandford & Potter, A.R.I.B.A., architects, 8, St. James'-st., Sheffield.

Skipton.—Governors of Ermysted Grammar school propose to extend building by two story block in front of existing museum and lecture room. Plans by the Architect to West Riding E.C.

Stanley.—U.D.C. propose 42 houses, for which tenders to be invited.

Stockport.—Plans approved for works at Chaddle Heath for Smith's Potato Crisps (1929), Ltd.—B.S. submitted lay-out plans of Bate's Ley Farm for houses.

Stockport.—Corporation proposing elementary senior school for about 700 scholars at Nangreave-rd., off Dialstone-lane

Stretford.—Percy Howard, A.R.I.B.A., 88, Mosley-st., Manchester, architect for men's ward at Memorial Hospital, for Trustees. Cost £5,000.

Sunderland.—Corporation to proceed with £5,000 plunge bath scheme in High-st.

Sutton Coldfield.—T.C. approved: shops, Birmingham-rd., W. A. Perry.

Taunton.—Proposals for stables in field adjoining kennels at £1,000 were approved at annual meeting of Taunton Vale Foxhounds.

Upton.—Hemsworth R.D.C. sanctioned 16 houses.

Wakefield.—Plans prepared for wool warehouse at Alverthorpe-rd., for A. Haley & Co., Ltd. J. P. Firth, architect, King-st.

Wakefield.—Acworth E.C. requesting West Riding E.C. to built school for juniors to accommodate 135.

Wembley.—Council approved: L. S. Kear & Co., 4 houses, Draycott-av.; Langley & Robinson, 9 houses, Sudbury Heights-av.

Whickham.—S. J. Stephenson, 2, Saville-place, Newcastle-on-Tyne, architect for Wesleyan school chapel, Market-lane, Swalwell.

Widnes.—Plans approved by T.C.: works extension, Derby-rd., for Bell's Poilite and Everite Co., Ltd.; 6 houses, Highfield-rd., for Appleton Land Co., Ltd.; parochial hall and club, Dock-st. and Lower Church-st., for Rev. T. Turner; loading stage, Derby-rd., Bell's Poilite and Everite Co., Ltd.

Wigan.—Ralph & Sons, L.R.I.B.A., 31a, King-st., Wigan, architects for alterations "Fox Tavern," Hotel, Chapel-lane, for Cunningham's, Brewers of Warrington.

Willington.—U.D.C. to build another 30 houses on site behind Commercial-st. Loan of £9,500.

Wombourough.—Surveyor, T. Shield, preparing plans for 48 houses, Ward Green side, for U.D.C.

York.—It has been proposed to buy a site at Clifton for elementary school

Yorkshire.—Wesleyan Authorities sanctioned following: Kettlesing, new chapel, £2,500; Allerton Bywater, new Sunday schools, £2,000; Tingley-Chapel, alterations, new vestry and porch, £1,193; Dudley Hill, Bradford, school extensions, and new classrooms, £1,490; Staveley, new choir stalls in chapel, £340.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 18 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster	2 14 3	Do. Bullnose	9 15 0
Do., Bullnose	3 7 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick:—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretchers	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers	28 10 0
Headers	20 10 0	One Side and two Ends	30 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	Two Sides and one End	31 10 0
		Splays, and Squints	2s 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS
Delivered London

	s. d.		s. d.
2 in. per yd super.	1 11	3 in per yd super	2 9
2½ in. " "	2 4	4 in. " "	3 6

	s. d.	
Thames Ballast	9 9	per yd
Pit Sand	12 0	" "
Thames Sand	12 0	" "
Best Washed Sand	12 6	" "
¾ in. Shingle for Ferro-Concrete	11 6	" "
½ in.	12 0	" "
¼ in. Broken Brick	11 6	" "
Fan Breeze	8 0	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.
Best Portland Cement. British Standard Specification. Test £2 4 0 to £2 8 0
28s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 7 6
Vitrocrete " "	0 7 6
Super Cement (Waterproof)	2 10 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Strapite, Coarse	2 9 0
" Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair	per cwt. 2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.
Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE.— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 2d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE.— F.O.R. Quarries, Wirksworth, Derbyshire.	s. d.
Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides "	22 6
Sawn three or four sides "	27 6
YORK STONE, BLUE—*Robon Head Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 20 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto "	6 0
2 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto, ditto "	1 3½
HARD YORK— Delivered at any Goods Station, London.	
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	2 1½
2 in. ditto ditto "	2 10
2 in. self-faced random flags Per yd. super	8

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 3s. 6d.; Moulded, 3s. 9d.; Cills, 10s. 0d

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
6 x 11	£27 10	3 x 6	£21 0
4 x 9	28 0	3 x 11	25 0
4 x 8	25 0	2 x 11	26 0
4 x 7	23 0	3 x 9	24 0
3 x 8	22 0	2½ x 9	24 0
3 x 7	22 0	3 x 4½	21 0
2½ x 7	21 0	3 x 4	21 6

PLANED BOARDS.

1 x 11	£30 0
1 x 9	£28 0

PLAIN EDGE FLOORING

Inches.	per sq.	Inches.	per sq.
⅜	18/-	1¼	30/-
½	21/-	1½	34/-
1	24/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.	Inches.	per sq.
1	24/-	⅝	16/6
1¼	30/-	¾	19/-
1½	34/-	1	24/-

Ins.	BATTENS	s. d.
¾ x 2	per 100 ft.	2 6

MATCHING (BEST).

SAWN LATHS. s. d.
Per bundle 2 6

1" AND UP THICK.

	£ s. d.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 18 0	to 0 18 0
Dry American and/or Japanese Figured Oak, ft. cube	0 14 0	to 0 15 0
Dry American and/or Japanese Plain Oak, ft. cube	0 10 0	to 0 13 0
Dry sq. edged Honduras Mahogany, ft. cube	0 15 0	to 0 18 0
Dry Log cut Honduras Mahogany, ft. cube	0 10 0	to 1 1 0
Dry Cuba Mahogany, ft. cube	1 1 0	to 1 10 0
Dry Teak, ft. cube	0 13 0	to 0 15 0
Dry American Whitewood, ft. cube	0 10 0	to 0 11 0
Best Scotch Glue, per cwt.	4 10 0	to —
Liquid Glue, per cwt.	4 7 0	to 5 10 0

SLATES

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	31 0 0	18 by 10	17 5 0
22 by 12	27 19 6	18 by 9	15 10 0
22 by 11	25 5 0	16 by 10	14 14 6
20 by 12	24 7 6	16 by 8	11 5 0
20 by 10	20 17 6		

TILES

Delivered at London rate stations in full truckloads of not less than 6 tons.

	Per 1,000. f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 2 6
ditto hand-made ditto	5 7 6
Ornamental ditto	5 12 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

R.S. Joints, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
" Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
⅜ in.	11 0 0	¾ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ¾ in. and under.	Fittings. Over ¾ in.	Flanges. ¾ in. and under.	Flanges. Over ¾ in.
	%	%	%	%	%	%
Gas	65	52½	45	47½	55	57½
Water	61½	48½	40	42½	50	52½
Steam	57½	45	35	37½	45	47½
Galv. gas	52½	40	35	37½	45	47½
Galv. water	47½	35	30	32½	40	42½
Galv. steam	42½	30	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10½d.	9½d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/0½	2½d.
5 in.	1/3	1/2½	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/2½	9½d.	1/2
2½ in. "	1/3	10½d.	1/4½
3 in. "	1/6½	1/1½	1/8½
3½ in. "	1/11	1/4½	1/11½
4 in. "	2/2½	1/7½	2/4½

*The above R.W. Goods prices are subject to an advance of 5% from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
In. per yd. in 6 ft. plain	2 5	1 9	2 1
2½ in. "	2 9½	1 10½	2 7
3 in. "	3 0	2 1	3 1
3½ in. "	3 3	2 7	3 7
4 in. "	3 6	2 11	4 1½

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd in 9ft. lengths	3 6	4 6	7 6
4 in. " "	4 5	5 5	9 3
5 in. " "	6 3	9 6	15 6
6 in. " "	7 3	11 6	19 6

Gaskes for jointing, 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars	11 0 0	to	12 0 0
Staffordshire Crown Bars—Good merchant quality	11 10 0	to	12 10 0
Staffordshire Marked Bars	14 0 0	...	15 0 0
Mild Steel Bars	10 0 0	...	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	9 10 0	...	10 10 0
Hoop iron, basis price	11 10 0	...	12 10 0
" Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g.	11 10 0	...	12 0 0
" " " 24 g.	13 0 0	...	14 0 0
" " " 26 g.	15 0 0	...	16 0 0
Sheets Flat Best Soft Steel, C.R. and C.A quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 0 0	...	17 0 0
Ordinary sizes, 6 ft. by to 3 ft. to 26 g.	18 0 0	...	20 0 0

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	16 0 0	...	17 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	19 0 0	...	20 0 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0	...	22 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	23 0 0	...	25 0 0
Best Soft Steel Sheets, 26 g.	24 10 0	...	25 10 0
Cut Nails, ½ in. to 6 in.	16 0 0	...	17 0 0

(Under 3 in. usual trade extras.)

METAL WORK.—Standard sizes, suitable for complete hot-water heating, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	27 0 0
Pipe in coils	27 10 0
Soil pipe	30 10 0
Compo pipe	31 10 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt extra. Cut to size, 5s. cwt. extra.

Old lead, ex London area, at Mills per ton	£16 10 0

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	1 8
Strong sheet "	1 0
Thin "	1 1
Copper nails "	1 11
Copper wire "	2 9

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN PEDESTAL CAPS AND SCREWS.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	2½ in.	3½ in	4 in.
7/6	10/-	14/-	22/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
8/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	2½ in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

TIN.—English Ingots, 2/3 per lb. SOLDER.—Plumber's 1/-. Tinmen's 1/2. Blowpipe 1/3 per lb.

PAINTS, &c.

			s. d.
Raw Linseed Oil, in pipes	per gallon		0 2 11
" " "	in barrels	"	0 4 1
" " "	in drums	"	0 4 3
Boiled " "	in barrels	"	0 4 3
" " "	in drums	"	0 4 5
Turpentine in barrels		"	0 2 10
"	in drums (10 cwts)	"	0 4 0
Genuine Ground English White Lead, per ton (in not less than 5-cwt. casks.)			51 0 0

Extra for 1-cwt. kegs over 5-cwt. casks in 5/0 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, so far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

		£	s.	d.
Genuine White Lead Paint, "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J." Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots	per ton delivered	70	10	0
Red Lead, Dry (packages extra)	per ton	30	0	0
Best Linseed Oil Putty	per cwt.	0	15	6
Fillcol	"	0	16	6
Size. XD quality	ftn.	0	3	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths	2½d.	32 oz. fourths	6½d.
15 „ thirds	3½d.	32 „ thirds	9d.
21 „ fourths	3½d.	Obscured Sheet, 15 oz.	3½d.
21 „ thirds	4½d.	„ 21 oz.	4½d.
26 „ fourths	4½d.	Fluted, 15 oz. 7d., 21 oz.	9½d.
26 „ thirds	6½d.	Em'lled, 15 oz. 4½d., 21 oz. 6d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
¼ Rolled plate	4½d.
⅜ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	5d.
Tinned do.	7d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per foot. s.	d.
Clear sheet—not exceeding 1 foot	1	0
Do. do. 2 feet	1	3
Do. over 2 feet	1	9
Polished plate—not exceeding 1 foot	1	6
Do. not exceeding 2 feet	3	0
Cathedral—not exceeding 1 foot	1	0
Do. larger sizes	1	6
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1	0
3/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide	2	6

VARNISHES, &c.

		Per Gallon £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Opal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	0
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	6
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	0
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebene		0	9	0
Cuirass Black Enamel		0	7	0

Roman London.

An interesting picture of the life of Roman London is contained in a catalogue which is published by the London Museum. Excavation is continually proceeding within the area covered by the Museum, and particular value attaches, therefore, to an authoritative summary by Dr. R. E. M. Wheeler of the latest developments of theory and research. The significant life of the city, as one of the great ports of the world, began (writes Dr. Wheeler) with the Roman Conquest. A river bridge, he states, must have been built at once, although there is no certain reference to it until the tenth century. Of overseas trade the catalogue has much to tell. The two-handled jars, which brought wine and oil from the Mediterranean, have been found in great numbers, while the red-glazed pottery of Gaul and Germany is found in greater abundance in "the unwatched excavations of London" than on any other Romano-British site. But amid this flood of imports the achievements of the native craftsman were by no means negligible. By the end of the first century he had learnt the Roman knack of mass production, and was better able to supply the needs of the home market. Glass-workers probably worked on the site of Clement's-lane, and kilns were built at St. Paul's. The arts of enamelling and metal-working were also practised locally.

NEW BUILDINGS IN SCOTLAND

Dundee.—Buildings.—Plans and sections of proposed new buildings, etc., have been lodged at the office of the City Engineer:—Ashbank-road—workshop, etc., for the Blackness Joinery Co., Mr. J. Johnston, architect, 32, Bank-street; Commercial-street and Dock-street—alterations for Messrs. Coast Lines, Ltd., Mr. W. P. Horsburgh, architect, Liverpool; Dalkeith-road (off)—bungalows for Mr. W. Black; Kinghorne-road—dwelling-houses for Mr. J. Brown, Mr. W. M. Wilson, architect, 61, Meadowside; Mains-drive—shop for Messrs. Inglis, Shepherd (Dundee), Ltd., Mr. W. B. D. Keith, architect, 10, Whitehall-street; Monifieth-road—houses for Mr. John Wilson, Messrs. Gauldie, Hardie & Sharpe, architects, 26, Commercial-street; Navarre-street—houses for Messrs. J. Tullis & Sons, Ltd.; Panmure-terrace, Barnhill—alterations and additions for Mr. R. L. Robertson, Messrs. Mills & Shepherd, architects, 9, South Tay-street; Princes-street—alterations for Mr. A. E. Leighton, Mr. J. Johnston, architect, 32, Bank-street; Reform-street—alterations for Messrs. A. A. Miller & Son, Ltd., Messrs. Maclaren, Soutar & Salmond, architects, 15, South Tay-street; South Tay-street—alterations and additions for Mr. G. M. Martin, Mr. Vernon Constable, architect, Old Town House; Stirling-street—alterations and additions for Mr. Douglas Moffat, Mr. Joseph Johnston, architect, 32, Bank-street; Tally-street—alterations for Messrs. Menzies & Sons, Ltd., Messrs. Thoms & Wilkie, architects, 21, South Tay-street.

Edinburgh.—Improvements.—Plans have been passed by the Edinburgh Dean of Guild Court for the restoration of Huntly House, which is to be used as part of the new City Museum. The scheme sanctioned by the Court comprises also the restoration of the wing behind Huntly House. The work of restoration is being carried out by Messrs. Mears & Carus-Wilson, FF.R.I.B.A., architects, of Edinburgh.

Amongst the other warrants granted by the Court was one for the extension of the Edinburgh Hospital for Crippled Children, Frogston-road. The extension includes an administrative block and a nurses' residence block. The other warrants granted included:—Messrs. Anderson & Walker—four houses at Hillview-drive, Corstorphine; Messrs. John Baxter & Sons—four houses at House o' Hill-avenue, Blackhall; Messrs. Donaldson & Low—ten houses at Redford-drive, Colinton; Royal Blind Asylum and School—boardroom, showroom and offices at Gillespie-crescent; St. George's West, Church of Scotland—alterations at church, Fountainbridge; Union Bank of Scotland, Ltd.—alterations at 5 and 6, Wolseley-place; Bank of Scotland and others—reconstruct clearing-house and exchange at 23, St. Andrew-square, and North St. Andrew-lane; Deacons' Court of Chalmers Church—church halls, etc., at West Port.

Grantown.—Repairs.—The Moray C.C. has decided to proceed with temporary repairs to the historic main road bridge spanning the Spey near Grantown. The cost will be about £1,200.

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'† Plasterers'†
Aberdeen	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Alexandria	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1
Ayrshire	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Berwickshire	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/8	†1/2½
Broughty Ferry	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Clackmannanshire	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/3½
Dumbartonshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dumfriesshire	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Dunoon	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
East Lothian	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Forfarshire	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/6½	1/7	1/6½	1/7	1/6½	1/6½	1/7	1/2
Glasgow	1/7½	1/8	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Hamilton	1/7½	1/8	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2
Hawick	1/7	1/7	1/7	1/7–1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Inverurie	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kincardineshire	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kinross-shire	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanarkshire	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Mid Lothian	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Motherwell	1/7½	1/8	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Peeblesshire	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Perthshire	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Peterhead	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Renfrewshire	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rothesay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Roxburghshire	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Andrews	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Selkirkshire	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stirling	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stornoway	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Lothian	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wishaw	1/7½	1/8	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 1017.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	"	20	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		½"	1"	1½"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	0	11
Centre for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		½"	1"	1½"	1½"
Deal-edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	"	—	49/-	57/6	65/-
Do. matchings	"	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	"	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	3d.

STAIRCASES.

	1"	1½"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail: average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	44	0
Do. Do. in flats	"	43	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	" "	2	9
Do. Do. Keen's	" "	4	0
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	" "	1	1
⅛-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
¼-in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

Pressure Piling.

An opportunity was afforded us last week of inspecting an interesting work of piling under conditions of difficulty. The site on which these operations took place is at 120, Pall Mall, where Sir Edwin Lutyens, R.A., has planned a new block of offices and showrooms. To either side of the site are adjoining buildings, and the problem presented to architect and engineer (Mr. B. L. Hurst) was to secure adequate foundations for the new erection without danger of interfering with the foundations of the older premises adjoining. It was decided that digging operations to obtain the required depth were out of the question, water having been found lying close to the surface. Ordinary systems of piling were then considered, but had to be rejected owing to fear of the effect that vibration might have had on the party walls. The system that was finally approved was one by which piles were sunk directly underneath the foundations of the two adjoining buildings by a system of compressed-air piling carried out by the Pressure Piling Co., Ltd. (of 119, Victoria-street, S.W.1). Ninety-six piles in all were sunk at short intervals underneath the foundations, and on these a retaining wall has been constructed to carry both the new and existing buildings, an extra sub-basement also being obtained.

Piling has for some years been recognised as an efficient and considerably cheaper alternative to the digging-out of foundations. This system which we have mentioned above would seem to have peculiar advantages in that: (1) the system is carried out by boring instead of any vibratory process; (2) the exact nature of the underlying strata is known; (3) in the operation only 6 ft. of head room is necessary, as the photograph reproduced here shows (an important consideration in connection with new buildings proposed next to older structures). The company, we learn, has carried out many important contracts, including work at the Belfast Customs House; Annesley Bridge, Dublin; the Sutton-Wimbledon Southern Railway extension; the Scottish Legal Life Assurance Society Building, Glasgow, etc.

Mr. James F. Parker.

We regret to announce the death on May 17 of Mr. James Fotheringham Parker, chairman and managing director of Messrs. Patman & Fotheringham, Ltd., of Park-street, Islington.

Gamage's New Store.

In regard to this new building, illustrated in our issue for May 9, we learn that the contract to supply and fit the whole of the outside blinds to these premises has been gained by the Artistic Blind Company, Victoria-road, Surbiton. The blinds being supplied are patent electrically-operated outside blinds with invisible arms.

Building with 3,000 Telephones.

Three thousand telephones—which is a record number for any single European building—will be installed in Thames House, Westminster, on its completion in 1931. The previous telephone record in this country was held by Imperial Chemical House, which had 2,000. In view of the size of the building, which contains three miles of corridors, eleven stories, and 770,000 square feet of floor space, it is proposed to equip Thames House with public call boxes and a system of private inter-communication telephones.

Sign Makers' Directorate.

We are informed that the Brilliant Sign Company (1907), Ltd.'s, increased business has necessitated the strengthening of the board of directors, which will enable the managing director, Mr. F. G. Lucas, partially to retire immediately and completely retire in the very near future, as looked forward to for the last twelve months. The new directors nominated are Mr. W. H. Fowler and Mr. R. W. Grigg. The new board of directors remind our readers that a new catalogue with many up-to-date designs, etc., is sent in reply to legitimate trade inquiries.

Pressure Piling in Confined Space.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office*.

Aberdeen.—Remaining contracts for the new schools at Hilton, primary and secondary. Mr. J. A. Ogg Allan, F.R.I.B.A., architect, 25, Union-terrace:—

Mason work—*G. Hall, back Hilton-road.
Reinforced concrete work—*Clark & Chapman.
Carpenter work—*Clark & Chapman, Novar-place, Aberdeen.
Slater work—*G. Currie & Co., Gilcomston-park, Aberdeen.
Asphalt—*W. Briggs & Sons.
Plaster work—*J. Scott & Sons, Ltd., Union-street, Aberdeen.
Plumber and heating—*J. F. Anderson.
Glazier and Painting work—*J. Masson & Son, Queen-street, Aberdeen.
Electrical work—*Aberdeen Electrical Engineering Co., Ltd., Belmont-street, Aberdeen.
Blacksmith work—*J. Abernethy & Co., Ltd., Wellington-road, Aberdeen.
Steel windows—*Crittall Manufacturing Co.
Carpave work—*W. Tawse, Ltd.

Aberdeen.—New primary school at Linksfield-road. Mr. J. A. Ogg Allan, F.R.I.B.A., architect, 25, Union-terrace:—

Mason work—
*A. Masson, Hardgate, Aberdeen..... £6,577
Reinforced concrete—
*Clark & Chapman, Catherine-street, Aberdeen 11,980
Slater work—
*E. Waldie, Union-row, Aberdeen..... 860
Asphalt—
*W. Briggs & Sons, Ltd., Dundee 569
Heating—
*J. F. Anderson, Summer-street, Aberdeen 2,570
Carpave work—
*W. Tawse, Ltd. 2,599
Windows—
*Crittall Manufacturing Co., Ltd., Braintree, Essex 2,960
Excavations—
*W. Tawse, Ltd., Rubislaw, Aberdeen 685

Arbroath.—Additional reservoir of 5,000,000 gallons capacity at Muirheads, for the T.C. Mr. Thos. A. Hogg, Water Engineer, Arbroath. Quantities by the Water Engineer:—

*Christie & Anderson, Arbroath.

Ashby Woulds (Leics.).—Installation of electric light in the Albert Village Houses, for the U.D.C.:—

*Kemp Bros., Coalville.

Ashford.—Maternity and child welfare centre in Vicarage-lane, for the U.D.C. Mr. A. F. Webster, surveyor, 5, North-street. Quantities by the surveyor;—

*F. Knock, Ashford.
(Subject to approval of M.H.)

Axminster.—Six houses in pairs at Beer, for the R.D.C.:—

*Restorick Bros. ..... *each* £427 2 5

Bacup.—Ambulance hall, for the St. John Ambulance Association, Ltd. Messrs. Smith & Cross, architects, Town Hall-chambers, Rochdale:—

*J. W. Sutcliffe, Bacup.

Basingstoke.—Houses at Grove-road, for the T.C. Mr. G. F. Paget, Town Planning Officer, Municipal-buildings:—

*J. H. Thompson & Sons, Ltd., 123, Cromwell-road, Grimsby £17,160

Beddington and Wallington.—External painting at 68 houses, Bute-road, Wallington, and 88 houses, Miller's Orchard estate, Beddington, for the U.D.C. Mr. S. F. R. Carter, engineer and surveyor, 42, Woodcote-road, Wallington:—

	Miller's Orchard.	*Bute-road.*
G. R. Buck, Sutton	—	£546 19
McColloch & Kingslake, Beddington	£1,217 13	958 11
W. S. Webb, Coulsdon	1,252 4	838 10
W. Baker & Co., Croydon.....	1,215 4	843 2
E. E. Morgan, Croydon	1,062 16	831 10
S. J. Evans, Carshalton	1,104 2	687 2
S. A. Miller, Thornton Heath	970 8	667 3
G. J. Green & Son, Ltd., East Croydon	885 0	673 0
Simmons & Keene, Wallington	817 16	672 13
Vernon Courtney Groves, West Croydon	788 3	808 10
Burnard & Pickett, Wallington	736 11	536 3
C. Manning, Greenford	678 0	574 10
Robert Scase & Son, Ltd., Surbiton	669 0	493 0
*F. Lilley & Sons, Croydon.....	604 6	405 0

Boddington and Wallington.—Fencing at Round Shaw open space, Wallington, for the U.D.C. Mr. S. F. R. Carter, engineer and surveyor, 42, Woodcote-road, Wallington:—

W. H. Allen, London	£800 5 6
Hill & Smith, Ltd., Brierly Hill	774 3 9
W. Hayward & Sons, Ltd.	734 18 6
Bayliss, Jones & Bayliss, Ltd.	668 7 0
W. A. Parker & Co., Workington	643 11 6
W. A. Baker & Co., Newport, Mon	630 3 6
W. Gratrix & Sons, Walkden	618 14 6
*T. W. Palmer & Co., Merton Abbey	608 15 3

Bexhill-on-Sea.—Erection of First Church of Christ Scientist. Messrs. Davidson, Son & Sherwood, architects, 32, Charing Cross, S.W.1:—

*J. Bodle, Ltd., Reginald-road, Bexhill-on-Sea £4,850

Biggleswade.—For (*a*) 46 houses at Arlisey; and (*b*) 10 at Clifton, for the R.D.C.:—

	(*A.*)	(*B.*)
M. J. Allen & Sons, Ltd., Brampton, Hunts	£20,975	£4,725
F. J. Bailey & Co., Ltd., Ashwell, Herts	18,600	3,690
Baxter & Worboys, Stotfold	16,988	3,480
Beaumont & Taylor, Henlow, Beds	—	3,380
Bennett Bros., Letchworth	17,700	3,740
Arthur Carter (Luton), Ltd., Luton	20,590	4,300
Herbert Gentle, Stotfold	14,900	3,265
Heels & Sugars, Luton	18,500	3,750
Geo. Hotter & Son, Ltd., Billingborough, Lincs	18,150	3,864
C. Hutchinson, Potton	—	3,550
Jeffs & Bigley, Letchworth	19,300	3,824
Charles Knight, Meppershall	18,170	*3,380
W. F. Rand, Ashwell	—	3,495
John Ray, Ltd., Letchworth	17,300	3,600
Seymour Bros. & Tookey, Stotfold	*16,133	3,541
Wrights (Langford), Ltd., Langford	—	3,600

Birkenhead.—Alterations and extensions to Temple-road school, for the E.C. Mr. R. W. Johnson, architect to the Committee:—

*W. Spencer, Bull Bridge, Aintree, Liverpool £3,358

Birmingham.—Shopfront at Hill-street, for the Colmore Depot:—

*A. Edmonds & Co., Ltd., Constitution-hill, Birmingham.

Blackburn.—Secondary school at Shear Brow with accommodation for 180 boys, for Rev. Fox. Mr. H. Greenhalgh, architect, 15, Mawdesley-street, Bolton:—

*R. Wearing, 45, Grimshaw-park, Blackburn.

Boyle.—Four houses at Boyle, Co. Roscommon, for the Irish Sailors and Soldiers Land Trust. Mr. W. J. Brown, F.R.I.B.A., architect, 50, Upper Mount-street, Dublin:—

*B. McDermott, Bridge House, Carrick-on-Shannon £2,394 8 4

Bristol.—Pavilion and shelter at Victoria Park, for the T.C. Mr. L. S. McKenzie, City Engineer, 63, Queen's-square. Quantities by the City Engineer:—

R. Wilkins & Sons, Ltd.	£1,055
H. C. Wakefield & Sons	1,013
Bray & Slaughter	927
R. F. Ridd & Sons	900
Wm. Britton & Son	897
*Thos. Weeks & Sons, Ltd., Ashton-gate	892

(All of Bristol.)

Buxton.—40 non-parlour type houses on the Heath-grove estate, for the T.C.:—

*Clay Cross Co., Ltd., Clay Cross, near Chesterfield.

(Subject to approval of M.H.)

Chatham.—New junior school to accommodate 350 boys on the ground in front of Luton Council schools, for the E.C.:—

*C. E. Skinner & Son.

(Subject to approval of B. of E.)

Chelmsford.—Completion of first portion of the new County Offices, for the Essex C.C.:—

*Hipperson & Son

Chester.—Alterations to the electricity showrooms and offices, 22 and 24, Northgate-street, for the Corporation. Mr. F. C. Saxon, A.R.I.B.A., architect, Cathedral-chambers, St. Werburgh-street:—

*W. Vernon & Son, Ltd., Chester £3,980

Chipping Norton.—Stripping and recovering the roof of the Town Hall, for the T.C. Borough Surveyor:—

To provide and lay new lead guttering at £4 per cwt.—

Burden & Sons, Chipping Norton ... £227 0

To provide and lay new lead guttering at £2 13s. per cwt.—

Burbidge & Son, Chipping Norton 160 0

To provide and lay new lead guttering at £3 per cwt.—

F. Lewis, Chipping Norton 152 17

To provide and lay new lead guttering at £2 13s. per cwt.—

*H. Sandalls, Chipping Norton 124 0

Colne.—War memorial in the grounds of a Public Library, for the War Memorial Committee. Mr. T. H. Hartley, Borough Engineer:—

*W. Kirkpatrick, Ltd., Manchester.

Doncaster.—Additions, alterations and renovations, etc., at Cantley Hall, for Mr. T. B. Earley. Messrs. Garside & Pennington, F.R.I.B.A., architects, Ropergate, Pontefract:—

*Whittington & Son (Doncaster), Ltd., Doncaster.

Dundee.—Painting the new secondary school in Perth-road, for the E.C. Messrs. Thoms & Wilkie, F.R.I.B.A., architects, 21, South Tay-street:—

Henry Drummond & Son, Dundee	£2,375 8 1
P. McKerracher & Sons, Ltd., Glasgow	2,176 5 10
Allan Beath, Ltd., Dundee	2,055 7 10
Thomas Brown & Son, Dundee	1,857 5 5
Wm. J. Ross, Dundee	1,795 19 11
*Joseph Thomson Dundee, Ltd., Dundee	1,758 19 0
P. B. Quinn, Dundee	1,748 14 8

Eastbourne.—Alterations and additions to a house in Grassington-road, for Mr. H. M. Simmons. Messrs. P. D. Stonham & Son, F.R.I.B.A., architects, Hadley House, Upperton-road, Eastbourne:—

*J. Bodle, Ltd., 5, Victoria-place, Eastbourne £1,697

Edinburgh.—Painting of the demonstration school, for the National Committee for Training of Teachers, for the Edinburgh Provincial Committee. Mr. F. Wood, architect, 73, George-street:—

G. M. Robb, 6, Henderson-row, Edinburgh £1,508

Elstree.—Enlargement of the County Council school at Furzehill-road, Boreham Wood, Elstree, for the Herts C.C. Mr. A. E. Prescott, County Surveyor and Architect:—

A. E. Massey, Cheshum	£8,653 12 3
Wm. King & Sons, Ltd., Watford	8,430 5 0
A. Clayton, Hatfield	8,120 10 6
H. C. Janes, Ltd., Luton	8,053 7 5
G. & J. Waterman, Ltd., Watford	7,989 0 4
H. Lacey & Sons, Luton	7,924 15 7
Turner & Payne, North Finchley	7,900 8 11
C. Brightman Son, Ltd., Watford	7,872 16 6
C. Miskin & Sons, Ltd., St. Albans	7,800 0 0
J. Guttridge & Sons, Ltd., Peterborough	7,656 14 3
A. H. Winter & Sons, Ltd., Harpenden	7,633 9 9
F. C. Slough, Barnet	7,388 0 10
John Ray, Letchworth	7,348 5 10
Clarke Bros., Ltd., Watford	7,322 0 0
W. O. Porter, Ware	7,305 8 0
*R. Ginn & Sons, Hertford	7,272 0 0

Edmonton.—New factory in Town-road. Messrs. H. Seymour Conchman & Sons, architects, 520, High-road, Tottenham, N.17:—

Matfock Bros.	£6,087
Moffatt Bros.	5,999
Albert Monk	5,920
Commercial Structures	5,593
F. E. Little	5,585

Folkestone.—Exterior painting at the Marine-gardens pavilion, for the T.C.:—

*Beach & Co. £131 12 10

Hadley Wood.—House, for Mr. B. Aston, in Camlet-way, Hadley Wood. Mr. Albert Kingwell, F.R.I.B.A., architect, Hadley Wood, Barnet:—

H. J. Gower	£7,565
Garsubil, Ltd.	7,347
Miskin & Sons	6,575
C. L. Bryen & Son	6,250
W. G. Shurmur & Son	6,057
*H. Lacey & Sons	6,020

Haywards Heath.—Alterations and additions to the existing house at Scaynes Hill, for Mr. R. R. Steel. Mr. R. M. F. Huddart, A.R.I.B.A., architect, 4, Grosvenor-hill, Wimbledon, S.W.19:—

*J. Bodle, Ltd., 5, Victoria-place, Eastbourne £5,696

Higham Ferrers.—Lavatories at the recreation ground. Mr. A. E. Lloyd, surveyor:—

*W. Packwood & Sons £236

Hornsea.—Painting 32 houses, Southgate-gardens, waterworks house, Atwick-road; 2 houses, Council-yard, Mereside; and fire station, for the U.D.C. Mr. H. W. Boardman, engineer and surveyor:—

R. E. Hobson, Ltd., Hornsea	£226 2 0
H. Jackson, Hornsea	202 5 0
—. Walsh, Hull	101 0 0
*John Barr, Hornsea	134 1 6
—. Watson, Hull	114 10 0

Hucknall.—82 houses, for the Council:—

*Jewell & Sons, Nottingham £29,050

Huddersfield.—Exterior painting of the properties, for the Corporation. Borough Architect, 26, Ramsden-street:—

Royds Hall school—*Brook Horsfall, Spring-street, Huddersfield.

Model lodging house—*W. & P. Holroyd, High-street, Huddersfield

Hull.—Installation of low-pressure hot-water heating apparatus at certain schools, for the E.C. Mr. R. C. Moore, Director of Education:—

Constable-street Girls' school, Beverley-road Infants' school—*West Hull Heating Co.
Northumberland-avenue Infants' school—*A. J. Snelling & Co.
Newland-avenue Girls' school, Chiltern-street Infants' school, Lime-street Boys' school—*F. & T. Ross, Ltd.

(All of Hull.)

Hyde.—New premises for the Midland Bank, Ltd. Messrs. Whinney, Son & Austen Hall, F.R.I.B.A., architects, 8, Old Jewry, London, E.C.2:—

*T. Warrington, Ltd., Hyde.

Kendal.—Meter house at the Gas Works, for the T.C. Mr. T. Crowdy, engineer, Parkside-road:—

*Downham & Son, Kendal.

Keswick.—Alterations and additions to the Skiddaw Hotel. Mr. P. M. Hope, L.R.I.B.A., chartered architect, 22, Station-road:—

*T. & R. Hodgson.
Joiners—*J. Milburn & Son.
Plumbers—*D. Thomson & Son, Ltd.
Painter—*F. J. Rothwell.

(All of Keswick.)

Kidderminster.—86 non-parlour type houses on Greatfield housing estate, for the T.C. Mr. J. Hawcroft, Borough Engineer, 110, Mill-street:—

*W. Cooper, Blackheath, Birmingham.

Leeds.—Reinforced concrete work at the Hunslet Library, for the T.C. Mr. J. E. Acfield, City Engineer:—

*S. Flockton, St. Agnes Mount, Stoney Rock-lane, Leeds £877 4 6

Leeds.—Rebuilding "Crown Hotel," Wellington-road, for Leeds and Wakefield Breweries, Melbourne Brewery. Messrs. Garside & Pennington, F.R.I.B.A., architects, Ropergate, Pontefract:—

*Matthews & Son, Leeds.

Leeds.—Structural alterations and improvements at Park-square, for the Children's Convalescent and Holiday Society:—

*Simpkiss & Reffitt.

Leeds.—Conversion of residence at 57, Headingley-lane into residential flats, for Mr. J. E. Dixon. Mr. J. B. Clay, architect:—

Builder—*J. Prior & Son.
Heating—*W. Miller.

Leeds.—Additional building as extensions to Rawdon College, for the Northern Baptist Society. Mr. Herbert Illingworth, A.R.I.B.A., architect, 8, East-parade:—

*Mitchell Yeadon & Sons, Yeadon, near Leeds.
Carpenter and joiner—*J. W. Taylor, Harrogate.
Slater—*E. C. Kesteven, Leeds.
Plasterer—*A. Firth, Yeadon.
Plumber—*G. Nunns & Son, Rawdon, near Leeds.
Painter—*C. H. Robinson & Sons, Rawdon.

Leeds.—Hot water installation for washing trams required in extension of Swinegate tram depot, for the T.C. Messrs. Chorley, Gribbon & Foggitt, architects, 5, Park-place:—

‡Brightside Engineering Co., Ltd.

Leicester.—Bronze shopfronts in Cheapside, for Mr. Morris Sirkin:—

Building—*Bowles & Son, Leicester.
Shopfronts—*A. Hawkes & Co., Leicester.

¶**London.**—The following contracts have been entered into by H.M.O.W. department during the week ended the 17th instant:—

Belfast Parliament Buildings—paving to corridors—Marbello, Ltd., Crescent Wharf, Birmingham.
Bristol Docks E.E.—erection—C. A. Hayes & Sons, St. Thomas-street, Bristol.
Regent's Park—erection of a sun-bathing pavilion—E. D. Winn & Co., Ltd., 36, Wilton-place, S.W.1.
Natural History Museum, Whale Gallery—erection of groundwork and foundations—A. Roberts & Co., Ltd., 74, Earl's Court-road, Kensington, W.8.
Hampstead T.E.—heating—R. H. & J. Pearson, Ltd., 145, High-street, W.11.

London.—Decorations on various housing estates, for the Lambeth B.C.:—

	Bloomfield estate.	*Holderness Portobello estates.*	*St. Louis terrace estate.*	*Prince's-road dwellings.*
J. Appleby & Sons, Ltd.	£2,300 0 0	£2,020 0 0	£1,095 0 0	£450 0 0
H. D. Harding, Ltd.	2,254 0 0	2,148 0 0	1,010 0 0	803 0 0
W. A. King & Sons (Brixton), Ltd.	2,199 0 0	2,010 0 0	975 0 0	768 0 0
L. Kazak & Co.	2,075 0 6	1,811 9 3	855 14 3	637 14 6
J. S. Taylor	2,650 0 0	3,500 0 0	1,850 0 0	4,000 0 0
William Carter & Sons, Sunderland	2,065 2 0	—	—	—
G. & C. Whittle, Ltd.	2,050 0 0	1,610 0 0	920 0 0	720 0 0
E. Turner, Manchester	1,844 10 0	2,215 9 0	648 8 0	640 0 0
Lamerton & Norris	1,843 0 0	1,606 14 0	984 16 0	1,030 0 0
H. May & Sons, Ltd.	—	—	886 0 0	—
R. Robinson	1,810 0 0	1,564 0 0	849 18 6	426 0 0
Franks & Simons	1,698 0 0	1,500 18 0	576 8 0	572 11 0
Hawkins & Co.	—	—	748 0 0	523 0 0
J. E. Morley	—	1,333 7 0	—	—
S. Lupton & Sons	1,283 16 0	1,187 16 0	598 16 0	458 1 0
H. Lawrence & Sons	1,228 0 0	1,244 0 0	559 0 0	500 0 0
Stephenson (Decorators), 14, Alfred-place, E.C.1	1,190 2 3	*1,047 4 8	*524 11 10	463 7 3
George Jones & Son, 27b, Church-street, W.8	927 0 0	1,271 0 0	703 0 0	*389 0 0
William Pitt, Rookwood-avenue, Wallington	*840 0 0	1,050 0 0	—	—
T. Sadler & Son, Clare, Merthyr Tydfil	748 15 0	895 18 0	253 10 0	753 0 0
T. J. Harding, Merthyr Tydfil	696 0 0	856 0 0	548 0 0	60 0 0

(Remainder of London.)

London.—Shopfront at 9, Western-avenue, Acton, W.3, for the Valet Cleaning Co.:—

*T. E. Seton & Co., Belsize-grove, N.W.3.

London.—Extension of the County Hall river wall, and also for the provision of a brick backing to the existing wall, for the L.C.C.:—

	"a" (158 *feet approx.*)	"b" (198 *feet approx.*)
Topham, Jones & Railton (1926), Ltd.	£39,844 11 3	£45,191 5 3
John Cochrane & Son, Ltd.	37,082 4 0	43,039 12 6
Kinnear, Moodie & Co.	36,938 5 6	42,104 15 0
Walter Scott & Middleton, Ltd.	36,938 11 6	41,150 5 10
John Mowlem & Co., Ltd.	33,680 13 10	38,362 6 2
Mitchell Brothers, Sons & Co., Ltd.	33,550 11 0	37,843 13 2
Charles Brand & Son	29,881 5 0	34,475 0 9
Dorman, Long & Co., Ltd., 55, Broadway, Westminster, S.W.1	29,965 12 4	*33,958 15 11
Chief Engineer's estimate	33,318 5 7	38,255 7 1

(All of London.)

London.—Builder's work in connection with highway improvements at Hornsey Rise, by Hornsey-lane, and at Highbury Corner, for the Islington B.C.:—

W. Bank & Son	£342
J. Johnson	302
J. C. Mather & Son	291
*A. Cheetham	270

(All of London.)

London.—Construction in concrete of open channel in connection with the improvement of the River Graveney, for the L.C.C.:—

The Walker Weston Co., Ltd.	£47,327 1
Topham, Jones & Railton (1926), Ltd.	42,384 7
Stewart & Partners, Ltd.	40,159 8
Tilemah & Co., Ltd.	39,476 10
D. G. Somerville & Co., Ltd.	33,005 16
Howard Farrow, Ltd.	30,786 2
John Cronk & Sons, Ltd.	29,934 12
Walter Scott & Middleton, Ltd.	28,181 2
The Monnoyer British Construction Co., Ltd.	28,112 16
L. J. Speight, Ltd.	27,136 12
A. E. Farr	26,488 15
Mears Brothers	26,438 7
John Mowlem & Co., Ltd.	25,380 11
*A. Jackaman & Son, Ltd., 13, Mackenzie-street, Slough	24,806 8
Chief Engineer's estimate	43,098 15

(All of London.)

London.—External and internal repairs at the Argyle-square Welfare centre, for the St. Pancras B.C.:—

Marchant, Hirst & Co.	£272 0 0
J. Reekie & Sons	259 17 0
E. C. Matthews	246 0 0
Holland & Hannen and Cubitts, Ltd.	245 0 0
F. Kirkham & Son	225 5 0
Moon & Sons, Ltd.	207 10 0
Whitby's, Ltd.	206 7 0
Lupton & Sons	192 0 0
J. H. & W. Heal	189 18 6
*Flesher Bros., 47, South-grove, N.6	157 5 6

(All of London.)

Maltby.—40 houses on the Tickhill-road housing estate, for the U.D.C. Mr. Morgan R. Jones, surveyor and engineer:—

—. Harden, Tickhill	£16,315 4 4
Jaques & Grieves, Doncaster	14,391 19 0
—. Metcalf, Doncaster	14,290 0 0
—. Thomason, Rotherham	13,802 0 0
—. Hobson, Nottingham	13,564 0 0
—. Blair, Rotherham	13,453 0 0
W. Wand & Sons, Maltby	13,194 7 6
T. H. Baines, Maltby	12,691 4 2
*—. Mallekin, Maltby	12,140 0 0

Manchester.—Additions to premises corner of Alexander-road and Yarborough-street, Alexandra-park, for Mr. D. Isaacs. Mr. Alexander McDonald, architect, 81, Meadow-street, Moss Side, Manchester:—

*S. Taggart, Moss Side, Manchester.

Manningham.—Structural alterations comprising new wards at the Children's Hospital, for the Governors. Mr. Wm. Illingworth, architect, Bradford:—

Builders—*Kitching & Hodgson.
Joiners—*W. C. Bogg & Son.
Asphalters—*Tunstalls Rock Asphalte Co., Ltd.

Melton Mowbray.—Additional slaughterhouses for the U.D.C.:—

*Edwin Newham, Melton Mowbray £830

Newcastle-upon-Tyne.—547 houses on section "B" of St. Anthony's estate, for the T.C. Housing Architect, 18, Cloth Market, Newcastle:—

	Sub-section I. 223 *houses.*	*Sub-section II.* 324 *houses.*
H. Kindred, Sunniside	£66,961 2 3	*£97,386 14 8
D. K. Gourley & Co., Newcastle	*66,552 0 0	97,405 0 0
Gustavus Bailey, Ltd., South Shields	67,051 5 10	98,037 19 4
J. W. Braithwaite & Co., Newcastle	67,248 7 0	98,425 2 0
R. Carse & Son, Ltd., Morpeth	67,658 19 4	98,965 5 5
Noble & Son, Ltd., Newcastle	69,717 10 0	102,020 0 0
A. V. Clerey & Sons, Sunderland	71,308 0 0	104,419 0 0
James Hobson & Sons, Ltd., Nottingham	71,407 0 0	104,827 0 0
J. S. Hetherington, Newcastle	71,789 6 11	105,217 19 5
H. Bell & Sons (Ryhope), Ltd., Ryhope	73,833 0 0	107,751 0 0
Alex. Anderson, Newcastle	78,134 0 0	103,828 0 0
Nordmann & Sons, Ltd., Dunston-on-Tyne	75,101 0 0	109,831 0 0
George G. Carr, Newcastle	75,022 0 0	109,809 0 0
W. E. Hall & Son (Low Fell), Ltd., Gateshead	75,601 1 6	110,999 9 0
S. P. Davidson, Newcastle	86,230 19 8	126,010 1 4
Elliott Bros., Newcastle	89,012 0 0	130,445 0 0

New Windsor.—Additions, etc., to Victoria-street Council school, for the T.C. Mr. J. A. Williams, Secretary for Education, Borough Education Offices. Quantities by Mr. E. A. Strickland, Borough Engineer:—

Structural work—
*R. Hendry, Grove-street, Windsor £296
Electrical work—
Wellman Bros., St. Leonard's-road, Windsor 45

Newtownards.—For reconstruction works of the hospital, for the B.G. Messrs. Young & Mackenzie, architects:—

Central heating—*Musgrave & Co., Ltd., Belfast.
Electrical plant and wiring—*J. Dowling & Sons, Ltd., Belfast.

Norwich.—Conversion of Oak Lodge, Thorpe, into five flats, for Mrs. S. Webb. Messrs. Buckingham & Berry, F.S.I., A.R.I.B.A., architects and surveyors, 43a, Prince of Wales-road:—

Gill & Son, Norwich	£2,098 0 0
C. R. Hannant, Norwich	1,998 14 8
Scarles Bros., Norwich	1,990 0 0
R. G. Garter, Drayton	1,960 0 0
W. S. Lusher, Norwich	1,945 0 0
*Taylor & Co., Wroxham	1,895 0 0

Nottingham.—New United Methodist Church in Broomhill-road, Bulwell, for the trustees. Mr. J. Higginbottom, architect, 76, Prior-lane, Nottingham:—

*W. Pipkin, Bulwell, Nottingham.

Nuneaton.—Pump house and ejector station on Weddington-lane, for the T.C. Mr. R. C. Moon, Borough Engineer and Surveyor:—

*Hope & Aldridge, Nuneaton.

Plymouth.—Alterations and additions to 10, Fore-street, Devonport, for gas showrooms, for the C.B. Mr. J. Wibberley, City Engineer and Architect, Sun-buildings:—

*Plymouth Builders, John-lane, Cobourg-street, Plymouth.

Potterspury.—Four houses at Potterspury, for the R.D.C.:—

Wm. Lepper & Sons, Potterspury	£1,570
J. S. Cowley & Son, Stony Stratford	1,560
J. H. Mountaine, Stony Stratford	1,496
H. H. Robinson, Roade	1,495
C. E. Ivens, Lichborough	1,442
*George J. Grudon, Greens Norton	1,430

Reading.—Interior fittings at Broad-street, for Messrs. Timothy Whites (1928), Ltd.:—

*A. Edmonds & Co., Ltd., Constitution-hill, Birmingham.

Ripley (Derbys).—Sunday school adjoining the Baptist Church, for the Trustees (Reverend John Elks), pastor:—

*Hugh Cox, Heanor, near Derby.

Ripon.—34 houses on Aismunderby housing site, for the Corporation, City Engineer:—

Moody Brothers, Northallerton	£15,100
Barron & Co., Coundon	11,816
Bainbridge, Ltd., Doncaster	11,590
J. W. Smith, Ripon	11,556
W. Jameson & Co., Darlington	11,220
*P. Duffy, Norton-on-Tees	11,064

Royston (S. Yorks).—Engine sheds adjoining the station, for the L.M. & S.Rly. Co., Ltd.:—

*R. Leake & Sons.

Runcorn.—12 parlour type and 38 non-parlour type houses, Grappenhall, for the R.D.C.:—

*Clough & Gaskell, Ltd., Wigan £18,110

Rye.—Alterations to the "Pipemakers' Arms," for the Star Brewery Co., Ltd., of Eastbourne. Mr. A. Ford, F.R.I.B.A., architect, 7, Gildredge-road, Eastbourne:—

*J. Bodle, Ltd., 5, Victoria-place, Eastbourne £3,436

St. Helens.—Workshops, general stores and a garage at the Gas Works, Warrington Old-road, St. Helens, for the Corporation. Mr. F. E. Ward, engineer and general manager, Gas Works:—

*R. S. Ellison, St. Helens.

Salford.—36 houses in Gerald-road, Pendleton, for the T.C. City Engineer:—

*J. Gerrard & Sons, Ltd., Swinton, near Manchester.

Sheffield.—122 non-parlour type houses on the Shiregreen estate, for the T.C.:—

*M. J. Gleeson, Ltd. £43,055 6 3

Sidcup.—For the acquisition and reconditioning of Queen's Hospital, for the L.C.C.:—

Hill & Burr, Bromley	£6,630
T. Knight, Sidcup	6,532
Bovis (1928), Ltd.	6,528
Thomas & Edge	6,330
W. H. Gaze & Sons, Ltd.	6,248
J. W. Ellingham, Ltd., Dartford	5,665
Henry Kent, Builder, Ltd.	5,400
Cole, Loasby & Co., Ltd.	5,318
*Vigor & Co. (Poplar), Ltd.	4,934
R. Woollaston & Co. (withdrawn)	2,814
Architect's estimate	4,900

(Remainder of London.)

Sidcup.—Reconditioning the drainage system at Queen's Hospital, Sidcup, for the L.C.C.:—

*Bostel, Ltd., Ebury-street, Pimlico ... £2,000

Shelf.—6 houses in Cross-road housing estate, also the street and sewer formation, for the U.D.C. Mr. G. R. Oddy, L.R.I.B.A., architect, Ward's End Chambers, Halifax:—
*H. Butterworth, Bradford.
Joiners—*W. Kellett & Co., Bradford.
Plumber—*F. Stadwell, Bradford.
Plasterers—*F. Mudd & Sons, Thornton.
Slater—*J. Smithies, Bradford.

TURPIN'S FLOORS

Over 60 years' reputation for good work.

Ensure lasting satisfaction by entrusting your PARQUET, BLOCK, and HARDWOOD FLOORS to:—

Ask for Booklet "B."

TURPIN'S PARQUET FLOORING CO. 25 Notting Hill Gate, London, W.11. 'Phone: PARK 1885 and 7585.

HOSPITAL & SCHOOL STOVES

SOLE MAKERS OF WRIGHT'S IMPROVED AND ALSO SHORLAND'S PATENT WARM AIR VENTILATING PATTERNS.

GEO. WRIGHT LONDON LTD 19 NEWMAN ST OXFORD ST LONDON W.1 WORKS - BURTON W.E.R. ROTHERHAM

J. GLIKSTEN & SON

LIMITED

ESTABLISHED 1885

Specialists in

SEASONED HARDWOODS

of all descriptions for BANK, OFFICE, SHOP-FITTERS, and BUILDING TRADES.

Timber always fit for immediate use.

PLYWOOD in all sizes and qualities.

Forty acres Storage Wharf and Registered Office:—

CARPENTERS RD., STRATFORD, LONDON, E.15.

Telephone: East 3771 (5 lines)

Telegrams: Gliksten, 'Phone, London.

Stanford.—50 houses in Grantham-road, for the U.D.C. Mr. S. F. Clare, surveyor, Jermyn-street:—
*Read Brothers, Grantham £14,350
(In lieu of tender withdrawn.)

Smallburgh.—Cottages, for the R.D.C.:—
Plus 24s. per foot for well, £11 or £15 for pump, 10d. per foot for fencing—
*Tooley & Youngs, Stalham, Norwich £1,310
Plus 20s. per foot for well, £15 for pump, 9d. per foot for fencing—
*B. Lambert, Hickling, Norwich 1,264
Plus 20s. per foot for well, £14 to £16 for pump, 10d. per foot for fencing—
*H. H. Stringer & Sons, Wroxham, Norwich 1,260
Plus 24s. per foot for well, £11 10s. for pump, 9d. per foot for fencing—
*Worstead, Yaxley, Bros. Smallburgh, Norwich 1,999

Stamford.—68 non-parlour houses on the New Cross housing site. Borough Engineer:—
*Wych Elm Estate Co. £20,740
(In lieu of tender withdrawn.)

Stapleford.—8 non-parlour type houses on Cow-lane site, for the R.D.C. Mr. G. C. Hardy, architect, 11, Church-street:—
*G. T. Rice & Co., Ltd., Wallaton-road, Beeston £2,660
(Subject to approval of M.H.)

Stockport.—Classrooms, cloakrooms, lavatories, etc., at "Longfield," Mauldeth-road, Heaton Mersey, for the Corporation. Mr. H. Hamer, Borough Surveyor:—
*Hibbert & Penn, Stockport.

Swinton.—50 houses off Church-street, for the U.D.C. Mr. H. Birks, engineer and surveyor:—
*Leadley's (Askern), Ltd., Askern, near Doncaster.

Walsall.—Fifty non-parlour type and 21 parlour-type houses on the Chuckery housing site, for the T.C.:—
*L. G. Pence, Walsall £23,450

Wolverhampton.—Motor omnibus garage in Bilston-street, for the C.B. Mr. Arthur Worrall, L.R.I.B.A., architect, 8, North-street:—
*H. J. Amies & Sons, Wolverhampton £23,947

Worcester.—Widening the Severn Bridge from 42 ft. to 60 ft., for the City Council:—
*Yorkshire Hennebique Contracting Co., Leeds £42,000

Wyllie (Mon.).—Wesleyan Chapel at Wyllie Village, Mon, for the Committee. Mr. A. F. Webb, L.R.I.B.A., architect and surveyor, Tredegar-chambers, Blackwood, Mon.:—
*T. Britton, Fleur-de-lis (Mon.) £3,563 9 4

J. J. ETRIDGE, Jr. Ltd.

SLATING AND TILING

SLATE MERCHANTS

CONTRACTORS

Inspections and Reports made on OLD OR FAULTY ROOFS in any part of the country.

Telephone: Bishopsgate 1944/5 or write

Bethnal Green Slate Works, BETHNAL GREEN, LONDON, E.

OAK FLOORING

1000 SQUARES 1" x 4" MILD GRAINED AUSTRIAN

SYDNEY PRIDAY & SNEWIN LTD.

Oak Specialists & Hardwood Merchants

OAK WHARF, RAVENSDALE RD., N.16

Phone: CLISSOLD 6253 (3 lines)

FITZPATRICK & SON

MASONS & PAVIORS

PAVING WORK OF EVERY DESCRIPTION

Largest stock of Second-Hand and Redressed (equal to new) Granite Setts in London, at Rock-bottom Prices.

Rectangular and Crazy York Paving. Rockery Stone, Granite Chippings and Tarmacadam.

Spur Stones to order.

Quadrant Blocks in stock.

454 OLD FORD ROAD, LONDON, E.3

'Phone—EAST 6338 7/8

FLOORINGS OF ALL KINDS

WOOD BLOCK-PARQUET

SOLID T & G HARDWOOD

Stevens & Adams Ltd

POINT PLEASANT · WANDSWORTH · S.W.18

TELEPHONE · PUTNEY 4701-2-3-4

HOWELL J. WILLIAMS Ltd.

Builders

High-Class Building and Joinery Work

11/17, BERMONDSEY STREET

Telephone: HOP 4786 LONDON BRIDGE S.E.1

Builders of very many well-known Banks, Offices and Business premises. Our works especially convenient for City Building and fittings.

E. PARKINSON (LONDON) LTD.,

ROOFING CONTRACTORS

SLATING, TILING. ASBESTOS. STRIPPING & RE-SLATING A SPECIALITY

189 HIGH ROAD, TOTTENHAM.

Telephone: TOTTENHAM 1400